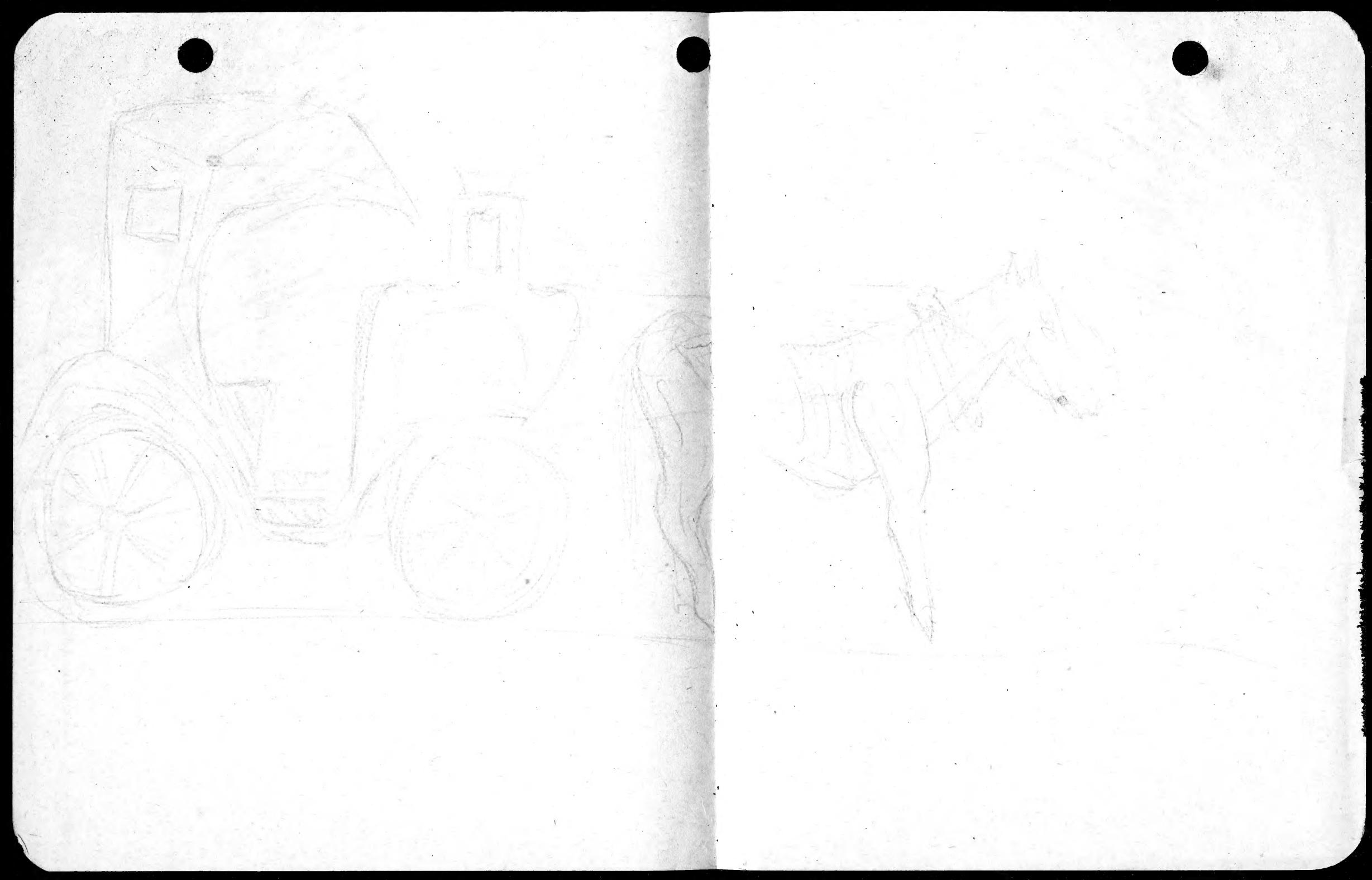


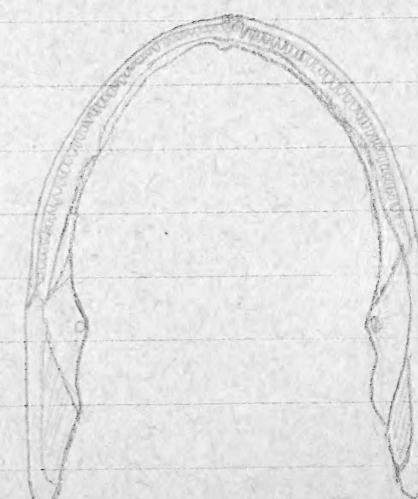
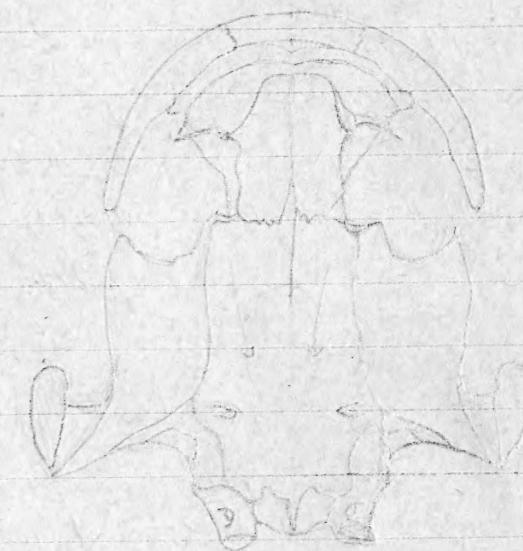
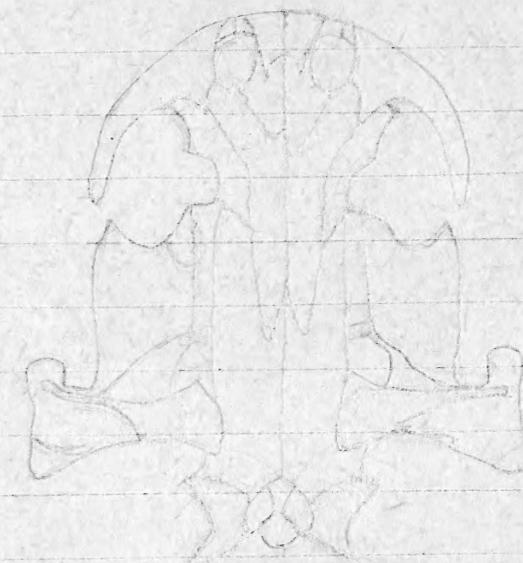
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VENTRAL GIRDLE



PECTORAL GIRDLE

## CAÑON CONTRERAS, FEB. 24, 1949.

WE DROVE TO 10,200 FEET AND COLLECTED IN THE FIR WOODS THERE. THE FIR BELT STARTS AT 8,500 AND CONTINUES AS HIGH AS WE WENT. BELOW THE FIR BELT IS PINE, WITH A SPINKLING OF OAK. THIS SHOWS A GRADUAL TRANSITION TO MUCH OAK AND LITTLE PINE, AND FINALLY NO PINE. SMALL SIDE CAÑONS HAVE STREAMS FEED BY MT. SPRINGS. ALL STREAM BEDS & SPRING SPOTS ARE QUITE ROCKY. CARLA WAGNER AND I WALKED UP A SMALL STREAM, TURNING ROCKS IN AND ON THE EDGES OF THE STREAM. NOTHING THERE. I TRIED ROCKS ON THE SIDE OF THE HILL, NO LUCK TILL I GOT TO THE EDGE OF A SMALL WET AREA, FEED BY SEVERAL SPRINGS. I FOUND 3 OEDIPUS UNDER ROCKS, THE UNDERSIDE BEING FAIRLY DRY, OR ONLY DAMP. THERE WERE NO SAGAMANDERS IN THE DRYER AREAS.

I WENT DOWN ABOUT 150 FT TO A LEVEL AREA WHICH HAD BEEN USED AS A COMPOSTE, AND WHICH WAS DAMP ALL OVER, AS A SMALL STREAM CROSSED IT. IT WAS ALMOST MARSHY. AGAIN IN THE DRYER PART, I TURNED A ROCK AND FOUND A HYLA LOFRENTZI. HE DID NOT TRY TO GET AWAY. HEGARTY SAYS HE HAS NEVER SEEN THE SPECIES BEFORE.

## CAÑON CONTRERAS, FEB. 25, 1949. A.M.

WE ARRIVED IN THE WOODS BEFORE THE SUN HAD FULLY COME UP, AND THE AIR AND GROUND WERE QUITE CHILLY. I FOLLOWED A SMALL CANYON, WITH WHAT MUST BE A FAIRLY PERMANENT WATERFALL. I FOUND NOTHING, NEITHER IN THE STREAM OR IN

ANY OF THE SEVERAL SPRINGS TO BE FOUND ON THE MOUNTAIN SIDE. TO DATE I HAVE WORKED ON THE AZUSCO SIDE OF THE CANYON, WHICH IS THE ~~SOUTH~~ SIDE, AND THEREFORE GETS LESS SUN EACH DAY. IT IS QUITE WET IN PLACES.

THE PEDREGAL, FEB. 25, P.M.

THIS IS AN AREA OF HEAVY AND EXTENSIVE LAVA FLOW, WITH GIGANTIC COLUMNS ACROSS THE PLACE. IT IS VERY, VERY DRY; I SAW NO WATER IN THE WHOLE PLACE. THERE ARE MANY CACTI AND A FEW LIVING OAKS, THE LATTER CHIEFLY ON HILLSIDES. PEPPERMINTS ARE COMMON, AND A FEW PINE ARE ON A HIGHER HILLSIDE.

I SPENT 3 HOURS HERE, AND SAW ONE LIZARD, 3 TIMES. THERE WERE MANY SCORPIONS, PILL BUGS, BLACK WIDOWS AND OTHER SPIDERS, AND A FEW EARTHCHEMBS UNDER ROCKS. THE SCELOPORUS WAS A COLLARED FORM, PROBABLY FERRARIPELLEZI, WHICH I COULDN'T GET CLOSE TO. BLACK BACK AND TRAIL, WITH A HINT OF CHEVRON MARKINGS. I SAW NOTHING ELSE HERE.

CAYON CONTRERAS, FEB. 25, LATER P.M.

RETURNED HERE FOR ANOTHER TRY AT THE NEOTERIC SALAMANDERS. WAGNER SAYS HE HAS COLLECTED IN THE MOUNTAIN STREAMS HERE. I FOUND NO SALAMANDERS, BUT I DID SEE SALAMANDER EGGS, ATTACHED TO THE UNDER SIDE OF A ROCK IN A MOUNTAIN POOL. THEY WERE INDIVIDUALLY ATTACHED. EACH WAS ABOUT  $\frac{3}{4}$  INCH IN DIAMETER, INCLUDING GELATIN. THE EGGS, IN THE NEUROBLAST STAGE, WERE ABOUT  $\frac{1}{4}$  INCH IN DIAMETER, LONGER THAN BROAD.

CAYON CONTRERAS, FEB. 26, P.M.

CROSSED THE CANYON TO THE OTHER SIDE, WHERE THE SUN STRIKES IN EARLY MORNING, AND SHINGS ALL DAY. THIS IS THE NORTH BANK, WITH A SOUTHERN EXPOSURE, ON THE SLOPE OF SAN MIGUEL. THIS SIDE IS CONSIDERABLY DRIER THAN THE OTHER, WITH LITTLE OR NO WATER. THERE WERE NO STREAMS WHERE I WALKED. THERE WERE A FEW OAK TREES, WITH YUCCA, CACTUS, AND MAFUGUO ON THE SLOPE. I FOUND A SCELOPORUS UNDULATUS ROCK ON THIS SLOPE, OF THE SAME SPECIES AS THOSE ON THE HOUSES IN THE CITY. I HAVE SEEN THEM IN GUADALUPE PARK AND AT THE LOS ANGELES COURT.

PEDREGAL, FEB. 26, P.M.

RETURNED WITH GUN TO TRY AGAIN FOR THE SINGER REPTILE, BUT I COULDN'T EVEN FIND HIM. THE HEAT OF THE AFTERNOON IS INTENSE, AND THE LIZARDS PROBABLY DO NOT SUNBATH THEN. GOT NOTHING.

KILOMETER 63, M.C. - CUCANAVACA HIGH, FEB 27, 1949.

THIS IS THE TYPE LOCALITY OF CUNNEOES INDUBITUS Tayor, so I stopped on the way to the HOSPITAL AT CUCANAVACA TO SEE WHAT HE COULD FIND. IT IS IN AN AREA OF HEAVY PINE-OAK FOREST, WITH MANY ROCKS AND A FEW LOGS. WE COULD FIND NO CEDARS AT ALL, ALTHOUGH IT WAS A PERFECT PLACE FOR THEM. WE TURNED OUT A VERY LARGE LOG, AND WAGNER SAID HE SAW A "BLACK LIZARD" RUN UNDER. WE COULD NOT RELOCATE THE BEAST, HOWEVER. WE SPENT ONLY A FEW MOMENTS THERE AS THE HOSPITAL WAITED DINNER ON US.

KILOMETER 46, M.C. - CUCANAVACA HIGH, FEB 28, 1949.

THIS IS AN AREA OF GRASSLANDS, WITH PINE ON THE KNOTS. THE GRASS IS "SACATON", A HEAVY BUNCH GRASS, WHICH GROWS WITH EXCEEDINGLY LONG DENDS. I FOUND THREE SCELOROPUS UNDER A SINGLE PIECE OF DARK OR A LARGE LOG ABOUT 3 FEET ABOVE THE GROUND, ALL 3 TOGETHER. I SAW SEVERAL OTHER SCELLOPS IN THE GRASS WHERE IT IS IMPOSSIBLE TO CATCH THEM. THE GRASS APPEARS TO BE VERY DRY, BUT AT SUNRISE THE DAWN IS VERY HEAVY, AND SUFFICIENT MOISTURE IS PRESENT FOR ANY LIZARD. MY PANTS WERE STAKED TO THE KNOTS.

THE 3 SCELLOPS ARE MOST STRIKINGLY COLORED. THE DARK CENTER OF THE BELLY IS LIGHT ORANGE IN 2, GREENISH IN THE 3RD. THIS LIGHT AREA IS BORDERED IN ALL 3 BY A VERY BRIGHT ORANGE. THE SIDES ARE BLACK WITH GREENISH SPOTS AND STRIPES. THEY HAVE MORE OR LESS DEFINED GREEN DORSAL-LATERAL LINES. ALL HAVE A NARROW, INCOMPLETE

BLACK NUCHAL COLLAR. ONE HAS AN ORANGE THROAT, THE SECOND A LIGHT, FLESH-COLORED THROAT, THE THIRD HAS A YELLOWISH GREEN THROAT.

MARCH 1, 1949.

TODAY WAS SPENT PREPARING FOR THE TRIP TO VERACRUZ. I CAUGHT A SINGLE SCELOROPUS IN THE PARKING AREA OF THE LOS ANGELES COUNTS. WE DROVE TO PUEBLA AND SPENT THE NIGHT.

MARCH 2, 1949.

LEFT PUEBLA EARLY, DROVE TO ORIZABA (MT.). THE LOW LAND TO THE WEST OF THE MOUNTAIN IS EXCEEDINGLY DRY. THERE WAS NO VEGETATION, AND THE VOLCANIC DUST LIES THICK ALL OVER. THERE WAS NO WATER AND NO STREAMS. WE TRIED TO CLIMB FROM THE WEST, BUT ALL ROADS LIE INCHES DEEP IN DUST, AND THE TRUCK COULDN'T PULL IT. WE THEN LEFT THE MOUNTAIN AND WENT NORTH TO PENOITE. WE TRIED TO CLIMB THE COFRE DE PENOITE FROM THE CITY OF PENOITE, BUT THE TRUCK AGAIN STALLED. WE THEN CONTINUED AROUND TO THE NORTH, AND WENT UP FROM A SMALL TOWN NAMED SIERRA DE AGUA. WE CAMPED TO A SMALL VILLAGE, LOS PESCADOS, AND SPENT THE NIGHT IN A MEADOW SLIGHTLY HIGHER THAN THE VILLAGE. I FOUND ONE SCELOROPUS UNDER A LOG AS WE CAME UP THE MOUNTAIN, BUT I AM NOW HIGHLY UNCERTAIN AS TO WHICH INDIVIDUAL IT IS. THIS SIDE OF THE COFRE HAS QUITE HEAVY PINE COVER, AND WE ARE CAMPED NEAR A SMALL STREAM. THERE ARE SPRINGS IN THE MOUNTAINS.

MARCH 3, 1949.

WENT OUT AROUND THE SMALL STREAM BEFORE BREAKFAST, AND FOUND IT SOARING A SHORT WAY BELOW THE CAMP. I PICKED UP 5 SACLAMANDERS HERE FOR THEM UNDER THE SAME ROCK, HIGH ON THE SIDES. I ALSO GOT ONE *SCECOPOLUS* HERE, AND WAGNER CAUGHT A SECOND. THEY WENT ALL UNDER ROCKS IN A DRY FIELD.

WE BROKE CAMP AND WENT HIGHER AFTER BREAKFAST. WE FINALLY STOPPED IN AN ALPINE MEADOW AT ABOUT 10,800 FT. THE VILLAGE OF LOS CONEJOS IS JUST OVER THE MOUNTAIN ABOUT 1/2 MILE. THE PEAK OF COFFEE ~~MOUNTAIN~~ IS CLEARLY VISIBLE DIRECTLY TO THE SOUTH OF OUR CAMP. IT IS AN ENORMOUS RECTANGLE, LOOKING LIKE A COFFIN, HIGH IN THE SKY. IT IS ABOUT 4,000 FEET ABOVE US.

THE ALPINE MEADOW IN WHICH WE ARE CAMPED IS QUITE FEW AND FULL OF LOGS. IT IS SURROUNDED BY FIR TREES, ALTHO THERE ARE PINE GROVES HIGHER UP. THE LOGS IN THE MEADOW ARE FULL OF *SCECOPOLUS*, AND SEVERAL MEXICANS AND I BUILT UP A LARGE COLLECTION OF THEM.

MACHINOSA TURNED OVER A LOG AT THE EDGE OF A SMALL CREEK AND FOUND A *CROTALLUS THIERRYI*. HE COILED UP AND I CAUGHT IT. IT WAS VERY SMALL (MEASUREMENTS JUST BEFORE PRESERVING - DEAD: BODY 332 MM., TAIL (INC. RATTLES) 38 MM., TOTAL 370 MM. THE MEXICANS TURNED UP ANOTHER RATTLES ON THE OTHER SIDE OF THE MEADOW IN A SEPARATE AREA, UNDER A LOG. BOTH OF THE SPECIMENS WERE IN QUITE DAMP AREAS. THE 2<sup>nd</sup> MEASURED: BODY 437 MM., TAIL 53 MM., TOTAL 490 MM. HE HAD A *MICROTUS MEXICANUS* IN ITS STOMACH. BOTH WERE FEMALES, I BELIEVE.

A PINE GROVE, A LITTLE FARTHER DOWNSLOPE THAN THE CAMP, PRODUCED AN AMAZING VARIETY OF SACLAMANDERS. ALL OF THE FOLLOWING WERE FOUND:

MARCH 3, 1949. (cont.)

SACLAMANDERS - 1<sup>st</sup> SPECIES - SAME AS ON ATUSCO, IN BANON CONTRAÑAS.

2<sup>nd</sup> SPECIES - LARGER THAN REST, A FAIRLY UNIFORM LIGHT BROWN, WITH A IRREGULAR ROW OF SILVER FLECKS ALONG UPPER SIDE, ALMOST FORMING A GOOD DORSOLATERAL STRIPE. THE SIDES ARE THE SAME BROWN COLOR ABOUT HALFWAY DOWN, THEN THE SLIGHTLY DARKER BELLY COLOR GOES THE REST OF THE WAY AROUND. THE BROWN IS QUITE RICH, ~~ABOVE~~ ALMOST A GOLDEN BROWN, OR CULTAFFY.

3<sup>rd</sup> TYPE - THERE IS A STRONG DORSOLATERAL LINE SEPARATING THE BACK OF THE SIDES FROM THE GREY OF THE BACK, THERE IS A FAINT BLACK VERTERAL LINE FORKING ON THE NAPE, TO EACH EYE. THE BACK IS GREY WITH TINY FAINT REDDISH ORANGE FLECKING. THE SIDES ARE BLACK WITH MUCH SILVER FLECKING. THE FLECKING IS ABSENT ON THE BELLY, WHICH IS SLIGHTLY LIGHTER BLACK. THE CHIN IS FLECKED WITH SILVER.

4<sup>th</sup> TYPE - THIS IS MUCH SIMILAR TO THE 2<sup>nd</sup> TYPE, BUT IT HAS A DORSOLATERAL LINE OF GOLD, MADE OF THICKLY CONCENTRATED FLECKS. THIS LINE IS BORDERED BELOW WITH BLACK, WHICH FADES RAPIDLY INTO A BLUSH-ENGLY BELLY. THE BACK IS ABOUT THE SAME BROWN AS IN THE 2<sup>nd</sup> TYPE.

ALL OF THESE WERE TAKEN IN A QUITE DRY PINE GROVE. ONE COULD DECIDE THAT A SACLAMANDER WOULD BE UNDER THE LOG, IF THERE WAS ANY SIGN OF DAMPNESS THERE. THE GROUND WAS HEAVILY COVERED WITH PINE NEEDLES. FALLEN LOGS WERE ~~ABUNDANT~~ ABUNDANT, SOME QUITE DRY, OTHERS DAMP, NONE WET. THERE WAS NO GROUND WATER THAT I COULD SEE. ALL KINDS OF SACLAMANDERS LISTED WERE TAKEN IN THE SAME PLACE, AND USUALLY SEVERAL OF THEM UNDER THE SAME

logs, usually. THERE WAS NO ECOLOGICAL SEPARATION OF THESE SOURCES OR INDIVIDUALS THAT I COULD SEE.

MEXICANS ARRIVED IN CAMP SHORTLY AFTER I, AND THEY HAD A BEEF CUTION, BY THEIR COUNT, CONTAINED 126 COWARDS.<sup>0</sup> WAGNER & I COUNTED THEM, HOWEVER, AND THERE WERE 62 OF THEM, ALL OF THE SAME SPECIES. OF THESE WE DISCARDED 6 AS BEING TAILEDLESS, THEREFORE WE DON'T BUY THEM. I PRECURRED THE REMAINING 56.

MARCH 4, 1949 - COFRE DE PEROTE, 10,300 FT.

SPENT MOST OF THE MORNING WORKING ON THE SPECIMEN COLLECTED YESTERDAY. AS SOON AS I FINISHED I WENT UP THE COFRE, AS FAR AS THE VILLAGE OF LOS CONETOS. ON THE NORTH SIDE OF THIS VILLAGE WAS ANOTHER PINE GROVE, WITH HEAVY NEEDLE COVER, AND SOME COAS. I FOUND ONE SACCORHYNCHUS OF TYPE 2 UNDER A WOOD CHIP.

I FOUND A NEW TYPE OF SALAMANDER UNDER A LARGE LOG ALONGSIDE A VERY DRY, DUSTY ROAD. IT WAS NOT TOO DAMP UNDER THE LOG. IT WAS THE HIGHEST POINT AT WHICH I CAUGHT SALAMANDERS. IT IS ON THE SAME LEVEL AS THE VILLAGE OF LOS CONETOS, WHICH I JUDGE IS ABOUT 10,500 FT.

TYPE 5: A JET BLACK SALAMANDER WITH A DORSOLATERAL ROW OF GOLDEN FLECKS. THESE FLECKS TERMINATE IN A YEW WITH GOLDEN PAINT JUST BEHIND THE "EAR". THE LEGS ARE ALSO BLACK, MOTTLED WITH LICHEN-LIKE SILVER Patches. THE HEAD IS ENTIRELY BLACK, WITH THE LIPS FLECKED WITH SILVER. THE BELLY, CHIN, AND BOTTOM HALF OF THE TAIL ARE JETTY BLACK, WITH JUST 2 OR 3 LIGHT SILVER SPOTS ON THE CHIN. THE SIDES ARE FLECKED WITH SILVER. THE DORSOLATERAL GOLDEN STRIPE CONTINUES ON THE TAIL TO THE TIP.

WE WALKED ON THE COAS AND FOUND A LOT OF THEM. THE COAS IS A LONG, LOW, IRREGULARLY SHAPED PINE FOREST, COVERS A LOT OF GROUND, AND IS THE LOWEST POINT IN THE COAS. WE WALKED ON THE COAS AND FOUND A LOT OF THEM. THE COAS IS A LONG, LOW, IRREGULARLY SHAPED PINE FOREST, COVERS A LOT OF GROUND, AND IS THE LOWEST POINT IN THE COAS.

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MARCH 5, 1949. *Caribe* (Continued)

TYPE 6: THIS SALAMANDER IS REMARKABLE FOR THE SKINNEDNESS OF ITS BODY, AND THE LONG, THIN LEGS. IT IS A UNICOLOR ANIMAL, BEING A GREYISH BROWN ALL OVER. THE LEGS ARE CONSIDERABLY LIGHTER THAN THE BODY.

SALAMANDERS

DEEP CUTS HAVE BEEN MADE IN THE MOUNTAINS, AND THESE CUTS ARE OFTEN DEEP AND BROAD. BANANA TREES ARE GROWN IN THE CUTS, AND BANANAS ARE EATEN. THESE CUTS ARE OFTEN DEEP AND BROAD. BANANA TREES ARE GROWN IN THE CUTS, AND BANANAS ARE EATEN. THESE CUTS ARE OFTEN DEEP AND BROAD. BANANA TREES ARE GROWN IN THE CUTS, AND BANANAS ARE EATEN.

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MARCH 7, 1949. *Caribe* (Continued)AFTER SPENDING NIGHT  
IN VALLEY.

DEEP CUTS HAVE BEEN MADE IN THE MOUNTAINS. THESE DEEP CUTS HAVE WATER, USUALLY, AND QUITE OFTEN VERDENT VEGETATION. BANANAS ARE GROWN IN THE VALLEYS. THE HILLS ARE LIMESTONE, AND THE HIGHER MOUNTAINS ARE VERY DRY, WITH CACTI AND SO ON.

I WENT DIRECTLY TO BANANA GROVE AT THE FOOT OF THE HILL AND SET UP CAMP IN THE P.M. I SAW SEVERAL Sceloporus variabilis ON THE DUSTY LIME-STONE ROCKS DOWN WHICH I COULDN'T CATCH. THE GROVE WAS FULL OF TALL AND BANANA TREE BOLES, AND WERE GOOD SIZED CACTUS PLANTS. ONE OF THE FIRST ROCKS TURNED UP PRODUCED 3 Bu. eos AND A FROG I THINK WAS AN Eleutherodactylus. QUITE SMALL. THE BUFO FOLLOWED A LOGG TRAILBACK DOWN A SHORT HILL, BUT THEY CAME OUT RAILING RAPIDLY. NEXT I FOUND A LARGE PAT NYLA UNDER A BANANA BOLE, IN A HOLLOWED-OUT SPOT. HE GAVE QUITE A SCREAM AS I PICKED HIM UP.

I WALKED ACROSS THE GROVE TO A SMALL SPRING ON THE OPPOSITE SIDE OF THE VALLEY, ALSO LIMESTONE, AND QUITE DENSE WITH VEGETATION. ROCKS IN THE IMMEDIATE VICINITY OF THE SPRING PRODUCED 2 Rhadinurus, 1 Oedipus (PERHAPSE A DUTTERNAME), AND A VERY LARGE Cheniodonotus. I DIDN'T GET THE CATCH. ANOTHER OF THE SMALL Eleuther WAS UNDER A ROCK HERE.

MARCH 8, 1949. ~~AS~~ PLAN DEL RIO (CONT.)

I ALSO SAW A LEIOLOPHISMA THAT ESCAPED ME.

THIS EVENING, AFTER SUPPER, I HEARD BUFO OF SOME SPECIES CALLING VERY LOUDLY DOWN THE HILL. I TOOK THE TRAIL AND WENT DOWN, BUT THEY WERE IN TERRAIN COMPLETELY UNKNOWN TO ME, SO I COULD NOT FIND THEM. I CAUGHT A STRING OF FISH FOR BAILEY, AND RETURNED TO CAMP. MAC SAID HE KNEW HOW TO REACH THE POND I WAITED, SO WE WENT BACK AGAIN. HE TOOK ME TO THE DAM, BUT THERE WAS NOTHING THERE. I THEN FOLLOWED THE CALLS BACK Aways, THEN HAD TO WAIT A BIT. I HEARD A NEW CALL WHILE WAITING - IT SOUND EXACTLY LIKE THE QUACKING OF DUCKS. IT STARTS SLOWLY AND PICKS UP SPEED TOWARD THE END. I FOLLOWED IT TO SEE WHAT IT WAS, AND FOUND A RATHER SLOW FLOWING SECTION OF THE STREAM. THIS SMALL POND HAD BOTH THE BURROS AND THE QUACKERS IN IT. I FINALLY RAN DOWN THE QUACKERS, AND IT TURNED OUT TO BE A HYLA - AND I AM CERTAIN IT IS BAUDINII. I GOT ONE CLASPING PAIR, AND I FOUND EGGS DEPOSITED, IN THE SACK THE NEXT DAY - TWO MASSES. THEREFORE, HYLA BAUDINII BREEDS IN THE EARLY PART OF MARCH - AT LEAST IN THIS LOCALITY. I GOT 5 OF THEM.

I ALSO FINALLY GOT SOME OF THE BUFO. THEY COOK MOONLIKE CONTRACTUS TO ME. THEIR CALL IS TO ALL INTENT AND PURPOSES EXACTLY THE SAME AS THAT OF B. AMERICANUS, I COULD DETECT NO DIFFERENCE.

MIS CLINTON SAW A SNAKE WHICH WAS NEAR THE WATER, BUT WE COLDN'T GET IT. IT MUST HAVE BEEN A GEOPHIS FROM THE DESCRIPTION, A GOOD SIZED RANA CARRIED ON A GUTTURAL CONVERSATION ALL EVENING, BUT WE COULDNT GET ANY.

MARCH 8, 1949, PLAN DEL RIO.

SPENT THE MORNING COLLECTING LIZARDS WITH A 2 DUST SHOT. COLLECTED A DOZEN OR SO. BOTH CHEMIDOPHORUS AND SCELOPORUS WERE ABUNDANT IN THE LIMESTONE HILLS, IN VERY DRY PLACES. THERE WERE MANY ON THE FLAT PLAINS OR PRAIRIE AREAS, BUT MORE WERE ON THE SLOPES, WHERE THE BOULDERS FORM LARGE CREVICES, AND THE SUN DOESN'T SHINE QUITE SO BRIGHTLY AND ISN'T SO HOT. I SAW A VERY LARGE LIZARD WHICH STAYED TOO FAR AHEAD OF ME TO GET A SHOT AT IT, THAT GOT UP ON ITS HIND LEGS AND RAN, BIPEDALLY. IT WAS MARKED LIKE AN AMERICA (OR PECHI), ALTHOUGH I'VE NEVER HEARD OF BIPEDAL LOCOMOTION IN THESE GENERA. THE SCELOPORUS ARE ALWAYS QUICK MOVING AND MAKE SHORT DASHES, MOVING RAPIDLY AND STOPPING. (THEY ARE ALL S. VARIABILIS HERE, I BELIEVE). THE CHEMIDOPHORUS, ON THE OTHER HAND, ARE SLOWER, AND ARE ALMOST CONSTANTLY IN MOTION, CRAWLING DELIBERATELY, APPARENTLY ON THE HUNT. THEY DRAG THEIR TAILS BEHIND THEM, WHILE THE SCELOPORUS LOSE THEIR TAILS WHILE MOVING. CHEMIDOPHORUS IS VERY SNAKEUR IN ITS MOVEMENTS.

WE RETURNED TO THE SPRING I FOUND SO PRODUCTIVE YESTERDAY TO BOME, AND I TURNED THE ROCK AGAIN WHICH HAD ENCLUTED THE LARGE CHEMIDOPHORUS (ALL REFERENCES TO THIS GENUS AT THIS COLLECTION POINT MAY BE REFERRED TO AMERICA). HE WAS BACK THERE, AND THIS TIME HE SCRUTED OFF UP THE LIMESTONE SLOPE. I SHOT HIM EASILY. IT WAS DEADLY THE SAME DENSITY, AS I HAD PULLED HIS TAIL UP THE DAY BEFORE IN A DEEP CREVICE.

WE DROVE FROM HERE TO A NEW ROAD TO HUATUSCO, WHICH WE TOOK TO GO TO CORDOBA. THE DISTANCE TO HUATUSCO WAS TAKEN A VERY DAY, PLAINLY, LOWLANDS, WITH CACTI AND BEECH TREES ABUNDANT. WE CAME UP TO HUATUSCO AND

MARCH 8, 1949, cont.

FOUND HEAVY FOREST AND BANANA, COFFEE AND TABACCO PLANTATIONS. THIS DRIVE IS THROUGH DRENCHING COUNTRY, WITH DEEP CANYONS AND LUSH TROPICAL FOREST. I COULD CALL IT HUMID TROPICAL FOREST, MYSELF.

WE DROVE TO POTOSO VIEJO TO THE FOREST MUSEUM & NEXT. FOREST DAUGHTER (MARIANNE) TOOK ME TO A SPOT WHERE HYLA VENUSTA ABUNDED. THEY LIVE IN THE VERY MOIST BASES OF BANANA TREE BOLES. THE TREES GROW IN WHIRLPOOL LAYERS, AND CATCH WATER AND HOLD MUCH MOISTURE. THE PITS ARE DEEP WITHIN THESE LAYERS, AND ARE SOMETIMES, IN OLD TREES, WAY INTO THE PULPY CORE. WE ROCK HAMM WITH NO TRUBLE. WALTER DANQUIST TOOK ME NEXT TO THE REAR OF THE MUSEUM TO A LARGE PLANT HE CALLED "ELEPHANT EAT". THE PLANT CONSISTS OF LONG PETIOLED, ENORMOUS LEAVES, ALL FROM A CENTRAL LOW BASE. HERE AGAIN THE PETIOLES FORM A CHUTE WHICH FUNNELS WATER TO THE BASE WHERE IT IS STORED. DANQUIST EXPECTED TO FIND SOME HYLA MICROTYMPANUM HERE FOR ME, HAVING FOUND THEM THERE BEFORE. BUT WE FOUND 3 HYLA UNKNOWN TO HIM, AND ANOTHER H. VENUSTA.

WE LUNCHEON WITH THE FOREST, AND DROVE TO A CAMPING SPOT 8 KM. <sup>1700 FT.</sup> ENE OF POTOSO VIEJO (DATA FROM DANQUIST) CALLED OJO DE AGUA. THIS WAS A SHARP HILLSIDE NEAR LARGE SUGAR CANE FIELDS. THE HILL WAS COVERED WITH DENSE JUNGLE GROWTH, LUSH HUMID TROPICAL FOREST. WE COLLECTED 3 ANolis (SAGITTIS) AND A HELIOPHISMA BEFORNE DARK. I SPENT THE EVENING FINISHING THE SPECIMENTS FROM POTOSO RIO, AND COULD DO NO NIGHT COLLECTING.

THE ANOLIS HAVE A BRILLIANT ORANGE DORSAL WHICH THEY EXPAND AND CONTRACT AS THEY SIT ON BUSHES IN THE JUNGLE TANGLE. THEY HAVE A DEFINITE DORSAL PATTERN OF CAVES, WHICH APPEAR AND DISAPPEAR EASILY, HOWEVER.

MARCH 8, 1949 - POTOSO VIEJO, cont.

THE HELIOPHISMA WAS IN A HEAVY ROCK SLOPE, DEEP IN THE ROCKS. I SHOT HIM TO GET HIM.

MARCH 9, 1949. POTOSO VIEJO.

HEAVY RAIN THIS MORNING. I HAD TO STAY IN CAMP WHILE THE MAMMALOGISTS PICKED UP THEIR TRAPS, AND THEY DIDN'T RETURN WHEN THEY GOT BACK, SO I HAD LITTLE TIME FOR COLLECTING. I WENT AFTER SOME BROMELIADS I HAD SEEN ALONG THE TRAIL THE NIGHT BEFORE, AND I HAD TIME TO TRAIL A SPOT BEFORE I LEFT AT THE NOOK OF THE TRAIL'S NOOK. EACH OF THE BROMELIADS PRODUCED A SALAMANDER. MAINTAIN DROUGHT IN A HYLA HE FOUND IN A SMALL HOLE INSIDE THE CAVE WHICH IS THE SOURCE OF THE RIVER.

THE SALAMANDERS WERE QUITE DIFFERENT IN COLORATION WHEN COLLECTED. THE SMALL ONE WAS A LIGHT GREY DORSALLY, WITH BROWNISH GRAY SIDES. THE LARGE ONE WAS DULL REDDISH ABOVE WITH DARK BROWN SIDES. I KEPT THEM ALIVE IN A VIAL, HOWEVER, AND A FEW HOURS LATER THE SMALL ONE HAD CHANGED COLOR UNTIL HE CLOSELY RESEMBLED THE LARGER. A FEW HOURS LATER THE LARGE ONE WAS CLOSE TO THE ORIGINAL COLOR OF THE SMALLER. THIS RANGE OF COLOR VARIABILITY IS SURPRISING, TO SAY THE LEAST, AND I'M TRYING TO GET COLOR PICTURES OF IT.

MARCH 10-13 - MEXICO CITY.

MARCH 14, NEVADA DE TOLUCA.

WE DROVE UP TOLUCA IN THE AFTERNOON, LEAVING M.C. ABOUT 11 A.M. THE ROAD CLIMBS THE MOUNTAIN FROM

THE WEST. THE ROAD IS QUITE GOOD, AND RUNS TO THE LAKE IN THE CRATER. TREELINE IS AT 13,000 FT., AND I COLLECTED A Sceloporus microlepidotus UNDER A LOG RIGHT AT TREELINE. WE WENT BACK DOWN HILL TO 13,200 FT. TO CAMP. THERE WERE SEVERAL SPRINGS IN AN ALPINE MEADOW AND A GOOD SIZED CREEK. A ROCK IN THE MIDDLE OF THE STREAM COVERED TWO AMBYSOMA, WHICH I COLLECTED. FARTHER DOWN THE STREAM A ROAD BRIDGE HAD DROPPED IN AND CREATED A POND, TO WHICH I RETURNED IN THE EVENING, TO FIND MANY AMBYSOMA ACTIVE. IT APPEARED TO BE A BREEDING CONGRESS, AND I MADE MANY NOTES ON THE GROUP. ALL SPECIMENS COLLECTED SEEMED TO BE MALES, HOWEVER, WITH GREATLY SWOLLEN DORSAL LIPS. SEVERAL DEPOSITED SODA STICKINGS AFTER BEING PUT IN PRESERVATIVE. COMPLETE NOTE ON MY OBSERVATIONS IS IN THE ESSAYE, UNDER THE SPECIES.

March

MARCH 14, 15, TOLUCA.

FOUND 3 S. microlepidotus UNDER A SINGLE PIECE OF BARK ON A FALLEN LOG ON A HILLSIDE, AT 13,200. THE REST OF THE DAY WAS SPENT IN OBSERVATION OF THE SALAMANDERS IN THE POND. THE EVENING WAS QUITE COLD, AND THE POND FROZE SOLIDLY DURING THE NIGHT. MY THERMOMETER REGISTERED 22° AT 7:00 AM. MARCH 16. THE SALAMANDER ACTIVITY STOPPED AT ABOUT 11:00 AM., BECAUSE OF THE COLD.

MARCH 16, TOLUCA.

WE LEFT THE CAMP SITE VERY EARLY, AND DROPPED DOWN TO 11,500 FT. I GOT A LARGE SERIES OF Sceloporus HERE, ON THE ABUNDANT FALLEN LOGS. IT WAS STILL IN THE PINES HERE. I GOT microlepidotus CHIEFLY, WITH SOME nevus.

MARCH 17, A CERRO SAN ANDRES, MICHOACAN.

SPENT THE NIGHT OF 16<sup>th</sup> IN CIUDAD HIDALGO, AND DROVE ON TO THIS SHORT CHAIN OF PEAKS. THE ROAD IS 4 MILES WEST OF HIDALGO, TURN LEFT AND FOLLOW ROAD TO SAN PEDRO (DE AGUARDO, OR SOMETHING SIMILAR), WHICH IS TWO MILES FURTHER, ON THE DIRT ROAD. OUR CAMP IS FURTHER ALONG THE SAME ROAD, 9 MILES ON. THE SMALL VILLAGE CALLED RANCHO DE AXOLOTZ IS JUST OVER THE HILL FROM OUR CAMP. WE DROVE ON A CONSIDERABLE DISTANCE FURTHER TO A GOODSIZED LAKE, CALLED LAGUNA LARGA, AT 9,200 FT. THE LAKE IS ARTIFICIAL, THE RESULT OF DAMMING A SMALL STREAM BETWEEN TWO MOUNTAINS. I COLLECTED Rana pipiens, Sceloporus microlepidotus AND AN AMBYSOMA ON ITS SHORES. DROVE WITH MCVAUGH TO A LARGE SULPHUR LAKE, FULL OF BOILING HOLES. IT LOOKED LIKE A MUDDY MESS, BUT THE WATER WAS NOT BOILY AT ALL. A POOL NEAR THE LAKE WAS RIGHT AT BOILING, AND HAD BEEN USED OFTEN TO SCald FEET AND OFF CHICKENS. I CAUGHT 2 litterae ON A HILLSIDE IN A COLD SPRING.

IT SHOT STOP WHILE MCVAUGH TOOK SOME SPECIMENS OF CARAPULIN "THE COUNTRY HEN" NOTED ME A HYLA WHICH IS EITHER affrenzi OR coimbra. I THINK I HAVE SEVERAL OF THE 1<sup>st</sup> FORM HERE. THERE WAS LITTLE WATER HERE, BUT AN ALMOST DRY SPRING DRAINED THE AREA SLIGHTLY. I ALSO PICKED UP A Sceloporus HERE. HYLA DESCRIBED ON NEXT PAGE.

MARCH 18, 1949. CERRO SAN ANDRES.

FOLLOWS A STREAM WHICH PITS INTO THE ALPINE MEADOWS IN WHICH WE ARE CAMPED UPSTREAM. FOUND Ambystoma ordinarium, Rana pipiens AND S. microlepidotus ALONG THE STREAM.

MARCH 17, 1949 - CERRO SAW ANDRES.  
 HAD A HURTING LEG, SO HAD TO CANCEL THE TRIP UP THE MOUNTAIN. SO I WENT DOWN THE CANYON. FOUND A SMALL STREAM. TURNED OVER LOGS AND FOUND 3 *AMBYSTOMA* AND 1 *NEOTRICHIA*. FOUND A SMALL LAKE AND FOUND 1 *NEOTRICHIA* AND 1 *AMBYSTOMA*. FOUND A SMALL LAKE AND FOUND 1 *NEOTRICHIA* AND 1 *AMBYSTOMA*.

MARCH 18, 1949 - CERRO SAW ANDRES.

DROVE TO TOWN FOR SUPPLIES WITH MCNAUGH, SO THAT I COULD COLLECT LOWER DOWN. AFTER GOING TO TOWN WE WENT BACK UP THE MOUNTAIN TO A STREAM AT 7800 FEET. FAIRLY PINE, WITH SOME OAKS. FOREST AND GROVE COVERED WITH PINE NEEDLES, AND THERE WERE QUITE FEW ROCKS ON THE SLOPE. TURNING ROCKS PRODUCED A CONOPSIS. MCNAUGH COLLECTED A SACUDORA BIRD AND A NYLA BISTRIATA FOR ME ON THE SLOPES. I CAUGHT ANOTHER OF THE SMALL NYLA, WHICH ARE EITHER COFRENTI OR EXUMIA. THE SMALL LEG HAS THE T.T. ALT. TO THE EYES, BUT THEY ARE COLORED EXACTLY AS THE COFRENTI FROM THE D.F.

MARCH 20, 1949 - CERRO SON ANDRES.

WALKED UP THE CANYON BEHIND THE CAMP. THIS CANYON IS QUITE DAMP, AND WELL SUPPLIED WITH SPRINGS. THERE IS A FAIRLY DEEP STREAM IN IT, FLOWING RAPIDLY. SOME OF THE SPRINGS ARE QUITE HOT, PRACTICALLY BOILING AS IT COMES OUT. RANA PIPIENS IS VERY ABUNDANT IN THE STREAM, AND THERE ARE MANY INDOODLES IN THE STREAM. THERE ARE NO AXOLOTLS IN IT, HOWEVER. I GOT A SERIES OF 21 NYLA - AGAIN THE COFRENTI-EXUMIA THING. THEY WERE ALL UNDER DARK OR DAMP LOGS LYING ALONG AND

MARCH 20, 1949, CONT.

ACROSS THE STREAM. THERE WERE SEVERAL TIMES 3, 4 OR 5 UNDER A SINGLE PIECE OF DARK.

TOLD AN INDIAN BOY I WANTED SOME AXOLOTLS FROM THE LAKE AT THE RONCHO, AND HE BROUGHT IN 37 SACUDORAS AND 4 FROGS. HE SAID THEY CAME FROM THE LAKE. THEY WERE ALL TRANSFORMED BUT ONE.

MARCH 21, 1949 - CERRO SON ANDRES.

WENT TO THE LAKE TO CHECK ON THE BOY. FOUND OUT HE HAD GOTTEN THE AMBYSTOMA BY TURNING OVER ROCKS AND LOGS AT THE EDGE OF THE LAKE'S THRE, NOT IN THE WATER.

THE SPRINGS THERE ARE UNDER LOGS, AS MUCH AS 10 FEET. I ALSO GOT PSEUDOGYNEA DELICIA. AMBYSTOMA VARY MUCH IN COLOR, SOME ARE DARK GRAY, OTHERS ARE LIGHT GRAY. ARE QUITE ABUNDANT THERE. ALSO, I TOOK SEVERAL FROM TWO LAKES. THE SECOND WHICH MAY BE A PONCHON. PIPENS, MDS, AND A MUCH ALONG THE STREAM AND IN

O.R.

LAKE POTZCUNA.

UNDER A ROCK AT POTZCUNA. ALL THE ORGANS HAVE BEEN

MARCH 19, 1989 - CECIL SAW ADDRESSES

DRIVE TO TOWARD THE SUPPLIES WITH MCVAUGH, SO THAT  
I COULD COLLECT LOWER DOWN. AFTER GOING TO TOWN  
WE WENT BACK UP THE MOUNTAIN TO A STREAM AT 7,800  
FEET. CRICKET PINE, WITH SOME OAKS. FLOOR WAS HEAVILY  
COVERED WITH PINE NEEDLES, AND THERE WERE QUITE  
FEW ROCKS ON THE SLOPES. TURNING ROCKS PRODUCED A  
COMPOSIT. MCVAUGH COLLECTED A SACUDORA BIRDII AND  
A NYIA BISTINCTA FOR ME ON THE SLOPES. I CAUGHT ANOTHER  
OF THE SMALL NYIA, WHICH ARE EITHER LOFENTZII OR EXUMIA.  
THE HIND LEG HAS THE T.T. ART. TO THE EYES, BUT THEY ARE COLORED  
EXACTLY AS THE ~~♂~~ LOFENTZII FROM THE D.F.

MARCH 20, 1949 - CEMPS SAN ANDRES

WORKED UP THE CANYON BEHIND THE CAMP. THIS CANYON  
IS QUITE DAMP, AND WELL SUPPLIED WITH SPRINGS. THERE  
IS A FAIRLY DEEP STREAM IN IT, RUSHING RABIDLY. SOME OF  
THE SPRINGS ARE QUITE HOT, PRACTICALLY BOILING AS IT  
COMES OUT. RANA PIPIENS IS VERY ABUNDANT IN THE  
STREAM, AND THERE ARE MANY TADPOLES IN THE STREAM.  
THERE ARE NO ANACORTES IN IT, HOWEVER. I GOT A SENSE  
OF 21 NYCT - AGAIN THE CAFRENTZI-CRIMIS THING. THEY  
WERE ALL UNDER DARK OR DAMP LOGS LYING ALONG AND

MARCH 20, 1949, cont.

ACROSS THE STREAM. THERE WERE SEVERAL TIMES 3, 4  
OR 5 UNDER A SINGLE PIECE OF BARK.

TOLD AN INDIAN BOY I WANTED SOME RYCOLODS FROM  
THE LAKE AT THE RANCINO, AND HE BROUGHT IN 37 SQUAMANDERS  
AND 4 FROGS. HE SAID THEY CAME FROM THE LAKE. THEY WERE  
ALL TRANSFORMED BUT ONE.

MARCH 21, 1949 - CERRO SAN ANDRES.

WENT TO THE LAKE TO CHECK ON THE BOY. FOUND THAT  
HE HAD GOTTEN THE AMPHIBIANS BY TURNING OVER ROCKS AND  
LOGS AT THE EDGE OF THE LAKES THERE, NOT IN THE WATER.  
I GOT AN ENORMOUS QUANTITY THERE UNDER LOGS, AS MUCH AS  
300 YDS FROM THE WATER. I ALSO GOT Pseudoeurycea decolor  
UNDER THE LOGS. THE AMPHIBIANS VARY MUCH IN COLOR,  
SOME PRACTICALLY BLACK & VERNAL, OTHERS ARE OLIGOLACRY  
SPOTTED WITH YELLOW. THEY ARE QUITE ABUNDANT THERE.  
THERE ARE ALSO LOTS OF TADPOLES, I TOOK SEVERAL FROM  
THE STREAM BETWEEN THE TWO LAKES. THE SECOND  
LAKE IS RAPIDLY DRYING UP, WHICH MAY BE A FACTOR IN  
TRANSFORMATION. PIPENS, PIPENS MDS, AND A MUCH  
LARGER MD WERE PLENTIFUL ALONG THE STREAM AND IN  
THE LAKE.

MARCH 22, 1949. ENROUTE.

PICKED UP A *PITODORIS* D.R.

STOPPED FOR NIGHT AT LAKE PATERNO.

MARCH 23, 1949 - EN ROUTE.

COLLECTED AT CONOPSIS UNDER A ROCK AT POTZCUNA.  
It was quite brown, while all the others have been  
gray.

6.000 - 5.000 ft (avg.)

EL DOG

6.200 ft - San Pedro

to Agua Calientes

6.700 ft Hwy.

7.300 ft DEATH VALLEY

4

MARCH 23, 1949 - CONT.

DROVE TO CIUDAD GUzman, TURNING OFF THE HIGHWAY SOMEWHAT SHORT OF THE HIGHWAY TO ANTILLON. THE ROAD RUNS PAST TWO VAST DRY LAKES, ONE ALMOST IMMEDIATELY OFF THE HIGHWAY TO GUADALAJARA. THERE IS A SHORT STRETCH OF MT. ROAD BEFORE ONE COMES DOWN INTO THE FLAT. WE STAYED LOW PAST A SECOND DRY LAKE AND SOYUCA, THEN CLIMBED A LOW RANGE OF MTS TO GUzman. WE OVERNIGHTED IN GUzman. (HOTEL ANGULAND - THE WORST YET).

MARCH 24, 1949 - NEVADO DE COIMA.

THE ROAD TO THE MOUNTAIN IS THE FIRST TO THE NIGHT FROM THE SW CORNER OF THE PLAZA IN GUzman. IT FOLLOWS AN OLD DRY CARRIAGE ROAD (PROBABLY PLACED IN THE RAINY SEASON) TO TRAILHS. OUR CAMP SITE IS ON THE NW SLOPE OF THE MOUNTAIN, WITH THE PEAK NOT VISIBLE. IT IS SHOT OFF BY A CONGLOMERATE ESCARPMENT. THE ROAD PASSES THRU SOYAYULAS AND JASMIN TO EL ISOLTE AND ENDS IN FRONT OF AN OLD SAWMILL. WATER FOR THE TOWN MUST COME DOWN FROM HIGH IN THE MOUNTAIN VIA AN AQUEDUCT MADE OF HOLLOWED LOGS. THIS IS OUR H2O SUPPLY HERE. DR. McVAUGH CAUGHT AN REVENUS FOR ME ABOUT 7600 FT., ON THE ROAD UP. GOT 2 EUMECES AND A SCENO MICO. AT THE OLD MILL. WE MADE CAMP IN THE DIRTIES, DRIEST SPOT YET.

MARCH 25, 1949 - NEVADO DE COIMA.

SACRIFICE THE WHOLE DAY WORKING UP AND DOWN HILLSIDES AND CANYONS, TURNING LOGS AND RIPPING BARK. GOT TWO SCENO MICO. THIS IS THE DRY SEASON HERE WITH A VENGEANCE. THERE IS NO DAMPNESS ANYWHERE. I WORKED JUST AS HARD IF NOT HARDER HERE THAN ANYPLACE YET, BUT

MARCH 25, 1949, CONT.

GOT NOTHING. THERE WAS NO "LITTLE RAINY SEASON" HERE THIS YEAR - NO RAIN IN JANUARY - AND THE RESULT IS NOTHING STIRRING.

MARCH 26, 1949 - NEVADO DE COIMA.

WENT UP THE AQUEDUCT WHICH SUPPLIES THIS WHOLE AREA WITH WATER TO ITS SOURCE. THIS IS ABOUT 1500 FT HIGHER AND ABOUT 2 MILES SE OF EL ISOLTE. THE WATER IS CAUGHT ALMOST IMMEDIATELY AFTER FLOWING OUT OF THE GROUND AND PIPED AWAY, SO THIS IS JUST AS DRY AS ANY AS THE REST OF THE MOUNTAIN. I CAUGHT ONE PSEUDOGYPSA BELLII TO PROVE I PUT IN A DAY'S WORK. HE WAS UNDER A LOG VERY NEAR THE AQUEDUCT. THE AREA IMMEDIATELY ABOVE THE <sup>SPRING</sup> ~~LOG~~ IS ENTERABLE ONLY BY LADDER, AND IS NOT GRAZED BY CATTLE. ULTRA, THE NETTLE, IS A BUNDLES AND PAINFUL. HELMUT SAYS HE HAS NEVER HIT IT IN MEXICO BEFORE THIS. THE GRASS IS HIGH AND QUITE GREEN, AND BUSHES ARE NUMEROUS AND LARGE. IT WAS STILL TOO DRY FOR ME, HOWEVER.

MARCH 27, 1949 - NEVADO DE COIMA.

TRIED BROMELIA COLLECTING TODAY, AFTER GETTING ANOTHER BELLII UNDER A LOG IN A DEEP CANYON. THIS SPECIES IS APPARENTLY INURED TO DRYING, AND CAN STAND MUCH MORE OF IT THAN ANY OTHER SPECIES I'VE SEEN DOWN HERE. THE BROMELIADS PRODUCED NOTHING. THEY SEEM TO BE QUITE SENSITIVE IN THEIR CHOICE OF HOST TREE, BEING CONFINED TO OAKS, AND POSSIBLY TO ONE SPECIES OF THEM. THEY DON'T GROW ON PINES OR EUCALYPTUS AT ALL. THE BROMELIADS ARE QUITE DRY, WITH NO RECOMMENDS, JUST MOISTURE AT THE BOTTOMS OF THE LEAVES.

MARCH 28, 1949- NEVADO DE COIMA.

TURNED LOGS AND TOOK UP BROMELIADS ALL DAY WITH NO LUCK AT ALL. A COMPLETE BLANK. WENT DOWN TO ABOUT 7000 FT., BUT FOUND NO WATER OR LESSENING OF THE DRYNESS. THERE IS MUCH COVER HERE, AND THE HABE IS PROBABLY TREMENDOUS IN THE RAINY SEASON. THE BIRD LIFE IS ABUNDANT EVEN NOW, WITH MORE SPECIES THAN I HAVE NOTICED BEFORE ELSEWHERE.

MARCH 29, 1949- SAN GABRIEL, TOLUCA, 4000 FT.

DROVE FROM EL ISOTE TO THE MAIN ROAD TO TOLIMAN, AND FOLLOWED IT TO JASMIN, AND PAST. A FORK IN THE ROAD TOOK US IN THE WRONG DIRECTION (JUST WEST OF JASMIN, NEAR VOLCANO, LEFT TO TOLIMAN, RIGHT TO SAN GABRIEL). WE LEARNED OF SAN GABRIEL AND DROVE HERE INSTEAD OF TO TOLIMAN, AS PLANNED. DROVE EAST OF THE VILLAGE, WHICH IS IN A TERRIFICALLY DRAINED, DRY AND DUSTY VALLEY BETWEEN THE RANGES OF THE NEVADO DE COIMA & THE NEAR RANGE WEST, FOR THE MASTOS TO SET TRAPS. I WALKED OVER A ROCKY HILLSIDE WHICH IS ALMOST DEFINITELY A MINERATION SITE AND WOULD PROBABLY BE A GOLD MINE DURING THE FIRST RAINS. THERE ARE MANY ROCK CROPPINGS WITH CREVICES RUNNING DEEPLY BENEATH. I FOUND SEVERAL SKINNED SKINS OF CONOPIS OR TOLUCK SIZE UNDER ROCKS. HOOPER SAW A SMALL BROWN SNAKE ~~under a rock~~ WHICH HE COULDN'T CATCH.

ON THE WAY BACK TO TOWN WE STOPPED BY A SMALL WATER HOLE, ORIGINALLY ABOUT 15-20 FEET WIDE, NOW SHRUNK TO A SHALLOW POOL ABOUT 3 FEET DEEP AND 8-5 FEET WIDE. I FOUND 2 SCELOPS UNDER ROCKS, AND A VERY LARGE ROCK NEAR THE POOL COVERED

MARCH 29- CONT.

A VERY DORMANT YOUNG KINOSTERNON. HE WAS DRASTICALLY IN AND PANT OUT OF A SMALL HOLE WELL UNDER THE ROCK. HIS EYES WERE COMPLETELY SEALED SHUT. HELMUT RETURNED, AND WE DROVE TO TOWN.

MARCH 30, 1949- SAN GABRIEL, TOLUCA, 4000 FT.

WENT OUT WITH THE MASTOS TO TRAP LOCALITY, WHICH WAS ON THE HILLSIDE MENTIONED YESTERDAY, AND TURNED ROCKS IN THE EARLY MORNING. GOT 2 SCELOPS AND A GOODSIZED CEMIDOPHORUS, ALL UNDER ROCKS ON THE EDGE OF A CORN FIELD.

WHEN WE GOT BACK TO TOWN, I WENT WEST ALONG THE SMALL STREAM WHICH SUPPLIES THE TOWN'S H<sub>2</sub>O. IT IS A FAIRLY RAPIDLY FLOWING STREAM, WHICH OCCASIONALLY FORMS A GOOD SIZED POOL WITH PURPLE WATER. THE FIRST ROCK I TURNED PRODUCED A BATCH OF BUFO, ALL RECENTLY TRANSFORMED. THE FIRST ROCK HAD 12. THE NEXT BIG ROCK HAD 13, THE NEXT 15, AND ONE 18. I GOT A SERIES IMMEDIATELY AND STOPPED COLLECTING THEM. THE STREAM IS FULL OF TADPOLES. THE ROCK WALLS WHICH MARK THE HACIENDA BOUNDARIES ON BOTH SIDES OF THE STREAM WERE LIBERALLY SUPPLIED WITH LIZARDS, CEMIDOPHORUS, SCELOPS AND ANOLES. I SAW NONE OF THE IGUANA WHICH THE LOCAL PEOPLE SAY ARE COMMON HERE. I GOT A SCELOPS & NO CEMIDOPHORUS. I ENTERED A SMALL BANANA GROVE AND FOUND A HYLA IN THE BASE OF ~~the~~ A LEAF FRIED, BUT COULD FIND NO MORE THAN ONE.

TOOK THE GUN AND <sup>DIPNGIT</sup> SHOT IN THE P.M., AND SHOT 2 ANOLES, 1 SCELOPS & 1 CEMIDOPHORUS. DIPPED OUT A FISH COLLECTION AND A BATCH OF TADPOLES.

MARCH 30, -CONT.

I HAVE SEEN THE CnEMIDOPHORUS HERE RUN ON THEIR HIND LEGS ALONE SEVERAL TIMES. THE BODY IS NOT LIFTED HIGH, HOWEVER - THE FORELEGS ARE JUST LIFTED UP AND HELD ALONG SIDE THE BODY.

A Sceloporus I ~~saw~~ saw did not hesitate to dive into the stream and swim to the other bank when it spotted me. I shot him on the far bank.

THERE WERE VERY FEW FROGS ALONG THE STREAM, 12 WHICH I SAW DIVE AND SWIMMED FOR. WE'RE ALMOST CERTAINLY R. CILIENS, ALTHO I DIDN'T GET ONE. I THINK ALL THE TDS ARE PIPIENS, ALTHO I SAW A FEW VERY TINY BLACK ONES, PROBABLY BUFO.

MARCH 31, 1949 - SAN GABRIEL.

HEMUT BROUGHT IN A SCELOPORUS HE CAUGHT IN HIS TRAP, A MILE N. OF TOWN. I SPENT THE MORNING TAKING CARE OF THE SPECIMENS I GOT THIS MORNING, AND WE DROVE TO GUZMAN FOR THE NIGHT. McVAUGH GOT A STONERIA STONEROIDES ON COIMA FOR ME. IT HAS ONLY 5 COBIALES (7 IN SPECIES).

APRIL 1, 1949 - EN ROUTE.

SPENT THE A.M. IN GUZMAN BUYING SUPPLIES, ETC. DROVE TO THE NC SLOPE OF THE NEVADO, BY A VERY ROUGH ABOVE ROUTE. THE ALLWEATHER ROAD FROM GUZMAN TO SAN GABRIEL GOES SOUTH FROM G. TO THE FOOT OF THE NEVADO, WHERE A JUNCTION GOES SOUTHWEST TO ATENQUIQUE AND THE OTHER TO S. GABRIEL. THE LATTER FOLLOWS THE FOOTHILLS TO LOS ALPES, WHERE IT JOINS OUR OLD ROAD TO S.G. A BRIDGE AT LOS ALPES IS MISSING, THUS THE ALLWEATHER ROAD CANNOT BE USED ALL THE WAY. ABOUT 2 MILES SHORT OF LOS ALPES A ROAD GOES CERT TO A SAWMILL, AND THEN ON UP THE MT.

APRIL 1, 1949. (cont.)

TO 10,000 FT. THIS ROAD IS TOO STEEP ABOUT 7500 FT. FOR OUR TYPE OF TRUCK, ALSO THE LUMBER TRUCKS GO RIGHT ON UP. WE CAMPED AT ABOUT 7800 FT.

APRIL 2, 1949 - NEVADO DE COIMA.

I WENT DOWNHILL TODAY, BECAUSE OF MY PREVIOUS EXPERIENCES AT THE HIGH ALT. ON THIS MT. I DROPPED DOWN TO THE TREE LINE GOING DOWN, WHICH IS OPEN GRASSY FIELDS BEGIN (ABOUT 6800 FT.) THESE FIELDS ARE SPOTTED WITH ROCKS. THEY ARE CLOSELY CROPPED BY CATTLE. ALONG THE FOOT OF A STEEP HILL COVERED A SMALL CROTALUS, WHICH HAD JUST FINISHED SHEDDING HIS SKIN, THE CAST LYING BESIDE HIM. THE ROCKS YIELDED TWO SPECIES OF SCELOPORUS, FERRARIPIERCI AND SCALANUS. THE LATTER WAS QUITE COMMON, AND I PICKED UP A SMALL SERIES ~~AS~~ AS I FOLLOWED THE PATH AROUND THE HILLS. THEY WERE ALL UNDER ROCKS AND LOGS, IN OPEN FIELDS.

I CONTINUED ON DOWN THE MT. ALMOST TO THE FLAT VALLEY, AT ABOUT 6500 FT. A VERY DEEP VALLEY CAME OFF THE MOUNTAIN FROM VERY HIGH, AND CONTINUED IT'S CUT TO THE FLATLANDS. I WENT DOWN INTO IT, AND TURNED ROCKS, WHICH WERE NUMEROUS. I FOUND 4 CONOPSIS UNDER THESE ROCKS, MOST OF THEM ON THE CANYON SIDE ONLY A LITTLE ABOVE THE STREAM BED. THE STREAM WAS PERFECTLY DRY, OF COURSE, AS IS ALL OF THIS MOUNTAIN.

WE LEFT HERE ABOUT 4 O'CLOCK, AND WENT TO GUZMAN FOR WATER. THEN WE DROVE WEST ON THE DRY WEATHER ROAD TO SAN GABRIEL, DRIVING TO ABOUT 6500 FT. WE MADE CAMP ABOUT 6:30 UNDER THE FOOTHILLS OF THE RANGE DIRECTLY TO THE NORTH OF THE NEVADO.

APRIL 3, 1949-10 mi. W. OF C. GUZMAN.

FOUND 3 EUMECES AND ONE SCOPOL UNDER ROCKS AND LOGS. WE ARE STILL IN PRIMARILY PASTORAL COUNTRY, ALTHOUGH THE FOOTHILLS GO UP 1500-2000 FT RIGHT DRENCHED UP THE GRASS HERE IS ALSO HEAVILY GRAZED. ALL THE EUMECES WERE IN THE WOODS ON THE FOOTHILLS, WHILE THE SCOPOL WAS UNDER A ROCK IN THE NEVER GRAZED FIELD. SAW ANOTHER HERE I DIDN'T GET. IT WENT DOWN A GORNER HILL.

RODE BACK TO GUZMAN AT NOON AND PICKED UP THE BOTANISTS. DROVE TO GUADALAJARA DIRECTLY, AND SPENT THE NIGHT.

APRIL 4, 1949.

SPENT ENTIRE DAY IN GUADALAJARA. LEARNED FROM HEMUT THAT THERE ARE TWO MIRADORS IN VERACRUZ WHICH HAVE BOTH BEEN TYPE LOCALITIES. ONE IS BETWEEN JALAPA & V.C., THE OTHER BETWEEN COORDOBA & JALAPA. ONE IS THE FORMER PROPERTY OF PART OF HEMUT'S FAMILY, AND SERVED AS A COLLECTING PLACE FOR SEVERAL GERMAN COLLECTORS. ONE IS HUMID & MOIST TROPICAL, THE OTHER IS QUITE DRY.

APRIL 5, 1949-AUTLAN.

LEFT GUADALAJARA ABOUT NOON, AND DROVE ABOUT 25 MILES SOUTH TO THE ROAD TO AUTLAN, THRU ACATON. THIS ROAD PASSES THRU CONSIDERABLE DRY COUNTRY, BUT THE VALLEYS QUITE OFTEN HAVE WATER, AND THE BARRANCOES SUPPLY IT. A CONSIDERABLE PORTION OF THE ROAD IS IN RAIN SHADOW, AND ONLY SCRABLY OAKS, MESQUITE AND CACTUS GROW ON THE HILLSIDES. THE ROAD PASSES A QUITE SPECTACULAR MT. RANGE JUST NORTH OF AUTLAN, AND DROPS QUITE RAPIDLY.

APRIL 5, 1949-AUTLAN.

I RODE WITH THE BOTANISTS, AND WE HAD A FLAT TIRE ABOUT MILEWAY DOWN. AS A RESULT, WE DIDN'T GET TO AUTLAN TILL AFTER 8.

WENT OUT N OF AUTLAN WITH THE MASTERS TO SET TRAPS. SAW TWO LIZARDS, DIDN'T GET A JACK, BECAUSE OF THE PROXIMITY OF ROCK FENCES. FOUND A SAGD SNAKE SKIN UNDER A ROCK.

APRIL 6, 1949-AUTLAN AND 2 MI. N OF LA RESOLANA.

WENT OUT WITH THE MASTERS BEFORNE SUNUP, AND HAD TO WAIT FOR SUFFICIENT LIGHT TO COLLECT. AS SOON AS THERE WAS LIGHT ENOUGH, I TURNED ROCKS AND GOT A CNEMIDOPHORUS ELLIOTI. IT WAS QUITE CHILLY, AND I SAW NOTHING ELSE. THIS LOCALITY IS ON THE MAIN ROAD-AUTLAN-GUADALAJARA-AND IS VERY DRY VALLEY BETWEN VERY DRY HILLS, ALL COVERED WITH MESQUITE AND CACTUS. THERE IS A LONG RIVER SEVERAL MILES TO THE NORTH, WHICH SEEMS TO BE THE TOTAL WATER SUPPLY NEARABOUTS.

AFTER RETURNING TO AUTLAN, WE DROVE SOUTH ALONG THE HIGHWAY FROM AUTLAN TO MANZANILLO, GOING TO A SMALL TOWN CALLED LA RESOLANA, WHICH IS NOT ON THE HIGHWAY, AS SHOWN IN THE MAP, BUT SOMEWHAT SOUTH. WE TRIED TO FIND A ROAD FROM HERE UP THE SIERRA DE AUTLAN, BUT LOCAL INQUIRY SHOWED A COMPLETE LACK OF SUCH, UNLESS WE GO PRACTICALLY INTO MANZANILLO; AND WOULD TAKE 20 HRS. WE DECIDED AGAINST THIS AND RETURNED TO THE HIGHWAY, DRIVING BACK TOWARDS AUTLAN. WE CROSSED 2 MT. STREAMS ON THE WAY, AND CAMPED AT THE THIRD WE CROSSED. IT IS A WATER TRUCK, ELLING STOP, FIXED UP WITH PIPES TO FILL THE TRUCK. THE STREAM CONTINUES ON ACROSS THE ~~ROAD~~ ROAD AND

APRIL 6, 1949. CONT.

DROPS A SHORT DISTANCE INTO THE VALLEY. THE ALTITUDE HERE IS 1500 FT. JUST ACROSS THE ROAD FROM CAMP IS A SWAMPY AREA, WITH A TROPICAL ASPECT. MANY LIANAS AND DRAGMELIDES IN THE TREES, IMMENSE LEAVES, AND SO ON. <sup>LATER</sup> IT WAS A RICH AREA HERPETOLOGICALLY - I GOT SEVERAL *HYLO*, *LEPTODACTYLUS*, *NEOTYCHIASIS*, *BUFO*, *LEPTODEIRA*, ETC. IN IT. 2 OF THE 4 *LEPTODEIRA MACULATA* TAKEN WERE IN THE BASES OF ELEPHANT EAR PLANTS. THE OTHER 2 UNDER LOGS. THE *HYLO*, (SMITH I THINK) WERE AMAZINGLY ABUNDANT IN THE BASES OF THE ELEPHANT EAR, 2 OR 3 TO A LEAF. I GOT THE 11 SMITHI + SOME VERY TINY *LEPTODACTYLUS* ON THE GROUND, BUT WHEN I PRESERVED THEM THE NEXT DAY, THE SUN GOT TO THEM IN LATE AFTERNOON, AND DRIED THEM OUT PRETTY THOROUGH. KEPT THEM - MAY BE GOOD SKELETAL MATERIAL. GOT A BUFO AT NIGHT CROSSING THE ROAD.

APRIL 7, 1949 - 2 MI. N. OF LA RESOLVENT, 1500 FT.

SPENT THE ENTIRE DAY IN THE TROPICAL AREA, EXCEPT FOR SOME LIZARD SHOOTING IN THE DRY SLOPES WHICH SURROUND THE SWAMPY GROUND. *AMEIVA*, *ANOLIS*, 2 KINDS OF *CNEMIDOPHORUS* AND SCORPIS ARE HERE. I ALSO GOT A LARGE *PICIEND* UNDER A LOG IN THIS DRYER AREA. GOT THE 4 SNAKES ON THIS DATE, AS ABOVE. THERE WERE MANY FISH IN THE STREAMS, ALL MINNOWS. THE TREES WERE FULL OF PARROTS, SOQUITAIRES, AND DOZENS OF OTHERS. IT WAS ONE OF THE MOST DELIGHTFUL PLACES I'VE HIT, AND THE ONLY THING WRONG IS THAT IT'S TOO SMALL.

APRIL 8, 1949 - 2 MI. N. OF LA RESOLVENT.

I RETURNED TO THE SAME AREA TO HELP THE BOTANISTS COLLECT SOME OF THE ELEPHANT EAR (THEIR NUMBER ON IT IS ) IN WHICH I FOUND SO MUCH. I GOT MORE OF THE FROGS TO REPLACE THE DRIED SERIES, AND ALSO GOT SOME OF THE GRASSHOPPERS WHICH LIVE IN THE LEAVES. WE LEFT HERE IN THE AFTERNOON AND DROVE TO THE HIGHEST POINT, WHERE WE STOPPED TO COLLECT. IT IS QUITE DRY, WITH SCRUBBY OAK COVERS, ALSO SOME OF THE BIRCHES ARE SOMEWHAT MORE DRIED. THE HILLS ARE QUITE BARE. I PICKED UP A W. ANOLIS. WE DROVE INTO AUTZON FOR THE NIGHT, AND I SPENT MOST OF EVENING WORKING ON SPECIMENS.

APRIL 9, 1949 - AUTZON, 3000 FT.

SPENT THE ENTIRE DAY CATALOGING AND PRESERVING WHAT I'VE COLLECTED RECENTLY. I'VE BEEN WAITING FOR A CHANCE TO FIX THINGS RIGHT FOR 2 WEEKS, AND I CAN EARLY LIVE STUFF NO LONGER. WE LEAVE MONDAY TO SPEND THE WEEK HIGH IN THE SIERRA DE AUTZON, AND SPECIMENS WILL BE OUT OF PLACE IN THE MULE TRAIN.

APRIL 10, 1949 - AUTZON, 3000 FT.

DROVE WITH THE JEFE'S TO CHIATE TO ARRANGE FOR PACK ANIMALS FOR THE TRIP UP THE SIERRA. I DIDN'T GO ALL THE WAY, HOWEVER, BECAUSE OF THE GOOD COLLECTING ALONG THE WAY. THE ROAD GOES 8 MI. E. OF AUTZON, THEN ABOUT 6 MI. S. TO CHIATE. IT IS IN THE VALLEY MOST OF THE WAY, THRU DRY, DUSTY COUNTRY, WITH THINNY BUSHES, MESQUITE AND SOME EACTI. THERE IS A LOVELY YELLOW FLOWERING TREE, CALLED PRIMAVERA, ALL ALONG THE ROAD.

APRIL 10, 1949, CONT.

THE ROADS ARE KINED WITH ~~STONES~~ STONE FENCES AND THORNY BUSHES, AND THESE ARE ALIVE WITH LIZARDS. *ANOLIS* AND *CNEMIDOPHORUS* ABUND ON THE GROUND, AND THE FENCES HAVE *CTENOSAURUS* EVERY FEW FEET. I COLLECTED A SERIES OF THE *CTENOSAURUS*, WITH A WONDERFUL COLOR VARIATION. 2 OF THE 12 COLLECTED WERE SHOT OUT OF A TREE, ONE IN A HOLE ABOUT 36 FEET UP, THE OTHER ON A LIMB ABOUT 20 FEET UP. THE TREE WRS IN THE MIDDLE OF A RANCHO YARD, WHICH IS FAIRLY WELL SURROUNDED BY HOUSES. THEY LIE ON HOUSES AND BARN ROOFS QUITE COMMONLY. THEY LIE ON THE TOPS OF THE STONE FENCES, WITH THEIR HEADS RAISED, AND SLIGHTLY RAISED ON THE FORE LIMBS. THEY ARE EASILY VISIBLE FOR A LONG DISTANCE.

I GOT A *CNEMIDOPHORUS* ALONG THE ROAD, AND R. PIENS UNDER A LOG NEAR A SMALL STREAM WHICH PURPORTS TO HAVE TURTLES, ALTHO I SAW NONE.

RETURNED TO TOWN ABOUT 2 P.M., AND SPENT THE REST OF THE DAY FIXING UP THE *CTENOSAURUS*.

APRIL 11, 1949. ENROUTE TO SIERMA.

DOVE TO CHANTE WHERE WE LOADED OUR GEAR, ON MULES, LEFT THE TRUCK, AND STARTED UP THE MOUNTAIN. ON THE WAY UP WE PASSED THRU THE FOLLOWING SMALL VILLAGES:

THE TRAIL WINDS THRU PASSES BETWEEN MOUNTAINS WHICH STILL PERPETUATE THE DRY LOOK OF THE VALLEY. THERE IS MUCH DRY SCRUB OAK AND DRY GRASS. I COLLECTED AN *ANOLIS* IN AN ELEPHANT EAR, IN A DRY CREEK BED, ABOUT 3500 FT. WE HIT OAK FOREST ABOUT

APRIL 11, 1949, SIERMA DE AUTLAN.

4600 FT., AND PINES AT ABOUT ~~6000~~. WE CAMPED EARLIER THAN WAS NECESSARY IN A VALLEY THAT CONTAINED A GOOD NUMBER OF SPRINGS GIVING RISE TO SMALL STREAMS, WHICH COMBINE INTO A GOOD SIZED RIVER. I FOUND A *RADINERIA* UNDER THE FIRST LOG I TURNED, AND FOUND NOTHING ELSE THE REST OF THE NIGHT. THE ALTITUDE OF THIS CAMP WAS 5000 FT., AND THE AREA IS CALLED MONANTAN BY THE NATIVES.

APRIL 12, 1949 - SIERMA DE AUTLAN, 7600 FT.

WE CONTINUED OUR TRIP UP TO 7600 FEET TODAY, UP A CORDA WHICH CONTAINED CONSIDERABLE WATER. WE CLIMBED THE HILLS TO THE EAST OF MONANTAN. THE CORDA IS THE FIRST TO THE EAST OF THE CREST. WE WENT ALONG THE MOUNTAIN ABOUT 2-3 MILES AND CAMPED NEAR A SPRING. THE WOODS ARE NOT HEAVY, BUT THE TREES ARE LARGE AND TALL. THE UNDERGROWTH IS NOT THICK EXCEPT IN THE FLOOR OF THE VALLEY.

AFTER LUNCH, I LOOKED AROUND FOR GOOD COLLECTING PLACES, AND ENDED UP CLIMBING THE HILL. IT IS QUITE STEEP, AND IT TOOK ME 2 HRS TO GO UP. IT IS THE HIGHEST POINT IN THIS VICINITY, HOWEVER, AND PRESENTS AN ADMIRABLE VIEW. THE NATIVES SAY THAT ON A GOOD DAY ONE CAN SEE BOTH MONZANILLO AND GUADALAJARA FROM IT. I COULDN'T.

I FOUND A *GEKKOLOTHUS IMBRICATUS* AT AN ALTITUDE OF 9200 FT., UNDER A LOG.

HEMUT CAUGHT AN *ANOLIS* FOR ME AT THE CAMP THIS A.M. BEFORE WE LEFT FOR UPHILL.

APRIL 13, 1949 - SIERRA DE AUTAN.

THIS AREA, ALTHOUGH, HAS BEEN HEAVILY BURNED OVER RECENTLY - WITHIN 2 yrs. OR LESS, I WOULD JUDGE, AND BURNED HARD. ALL OF THE LOGS ARE BURNED SOME CLEAR THRU. I BELIEVE THAT THIS HEAVY AND ACCORDING TO INDIANS, REPORTED BURNING IS VERY DETERIMENTAL TO NEAR STUFF. I THINK IT COULD BE OUT OF THE AREA AND THEY ARE RATHER SLOW TO COME BACK. IT MAY EXPLAIN THE PAUCITY OF MATERIAL HERE. ANYWAY, I WORKED HARD ALL DAY, AND GOT NOTHING AT ALL.

HELMUT GOT ME LONGTHER GEMMNOTUS OUT THE MOUNTAIN, HOWEVER, SO THE DAY WASN'T WASTED.

APRIL 14, 1949 - SIERRA DE AUTAN.

WORKED SOUTHEAST OF CAMP ALONG THE STREAMBED, FINDING MANY VERY GOOD PLACES FOR SPECIMENS, WONDERFUL HABITS, AND SO ON. AFTER A FULL MORNING'S WORK I CAUGHT A SALVATORIA DRINKING AT A SMALL POOL OF WATER IN A DAY SECTION OF THE CREEK. IT IS AMAZING THAT SUCH GOOD TYPICAL HABITAT CAN BE SO BARREN OF SPECIMENS.

WENT DOWNSTREAM IN THE AFTERNOON AND MET BOB WILBUR, ALSO EXCITED. HE HAD FOUND SALAMANDERS IN THE STREAM. HE HAD TWO FOR ME, AND THEY WERE GILLED AMBystoma. THEY WERE LIVING IN THE QUIET POOLS FORMED OCCASIONALLY BY THE RAPIDLY FLOWING STREAM. I COLLECTED A COUPLE MORE, AND WENT TO CAMP TO MAKE A DIP NET TO FACILITATE GETTING A SERIES. THE THING IS UNDOUBTEDLY NEW.

BOB ALSO KILLED A THAMNOONIS FOR ME WHICH HAD BEEN LYING ALONGSIDE A POOL. HE ALSO GOT A NYCTAFRUM A TREE HE CUT DOWN.

APRIL 14, 1949 - SIERRA DE AUTAN (CONT.)

I FASHIONED A DIP NET OUT OF CHEESECLOTH AND SPENT THE NIGHT CATCHING A SERIES OF THE AMBystoma. AFTER GETTING THE ADULTS I FOUND JUVENILES IN MUDDY POOLS UPSTREAM, AND I GOT A FEW OF THEM. THERE SEEMS TO BE NO SIGN OF SEXUAL ACTIVITY AT THIS TIME, AND THE JUVENILES MAY BE FROM THIS YEAR'S NEST, WHICH WOULD GIVE THEM ENOUGH TIME TO GROW UP BEFORE THE RAINS AND HEAVY SWOLLEN STREAMS APPEAR.

APRIL 15, 1949 - SIERRA DE AUTAN.

SPENT THE MORNING PREPARING THE SALAMANDERS. I TRIED A NEW TECHNIQUE, IN ORDER TO GET A FULL TAIL, AND GILLS, WITH OUTSTANDING FINS. IT WORKED QUITE WELL. INSTEAD OF USING A PAN TO FIX THEM, I DROPPED THEM IN A LARGE CAN OF FORMALIN, WITH NOTHING TO FOLD THEM. THE GILLS FLARED OUT AND THE TAIL FIN WAS FULLY EXPANDED. THEY FIXED THAT WAY FAIRLY WELL. THE SAME THING WORKED FAIRLY WELL FOR THE JUVENILES I HAVE.

HELMUT AND I WENT OUT AND TOOK PICTURES OF THE Pools this P.M. HE WENT TO A LOT OF TROUBLE AND HARD WORK, AND I THINK THEY'LL BE FINE. I THEN COLLECTED A FEW MORE OF THE SALAMANDERS, TOOK NOTES ON THEM AND THEIR HABITAT AND SO ON. THE BOTANISTS BROUGHT IN A SCENOPODIA AND A STONERIA FROM THE TOP OF THE MT., AND HELMUT BROUGHT IN A STONERIA HE FOUND ON THE TRAIL. THE STONERIA KEY TO STONEROIDES, BUT THEY SURE DON'T LOOK LIKE THE ONE I GOT ON COLIMA. THESE AUTAN SPECIMENS WILL ACCORDINGLY CLUSTER SPECIALLY.

APRIL 16, 1949 - SIGUARDE AUTLAN.

PACKED UP AND LEFT CAMP TODAY. THE MULE DRIVERS WERE SLOW GETTING UP THE MOUNTAIN AND SLOWED UP GETTING PACKED, SO WE FINALLY LEFT AT 12:30. I SHOT A SCOPARUS ON THE WAY DOWN, AT ABOUT 7500 FT., AND ONE OF THE INDIAN MULEDRIVERS PICKED UP AN ANDOLIS AT ABOUT 4600 FT.

TO GET TO OUR LOCALITY, ONE GOES FROM CHANTE THRU LA CEDRA AND TECOPATLAN TO A GROUP OF RANCHES CALLED MANANTLAN. WE WERE IN THE MOUNTAINS TO THE EAST OF MANANTLAN. THERE ARE A NUMBER OF SPRINGS IN THE NW CORNER OF THE VALLEY IN WHICH MANANTLAN IS LOCATED, AND THE TRAIL UP THE MT. PASSES THRU THIS AREA. OUR CAMP, AT 7600 FT., WAS TO THE SOUTHEAST OF MANANTLAN.

THE INDIANS IN THE PACIFIC TERRIN KNOW WHAT THE SOUTHERNERS WERE, CALLING THEM AKOCOTLES. THEY TOLD ME THAT THE STREAM FROM WHICH I TOOK THEM IS THE ONLY ONE IN THIS ENTIRE REGION THAT THEY HAD NEVER SEEN THEM ELSEWHERE. THE STREAM FLOWS INTO THE RIO ARMERIA, WHICH IS PACIFIC DRAINAGE DIRECTLY. THUS IT WOULD SEEM THAT THIS IS A TOTALLY ISOLATED, ENDIMIC POPULATION.

APRIL 17, 1949 - AUTLAN & GUADALAJARA.

THE BOY IN THE HOTEL AT AUTLAN, THE SON OF THE OWNER, IS A BRIGHT LAD, AND WHEN HE SAW A SNAKE WHICH SOME PEOPLE HAD IN THE HOTEL, HE TOLD THEM OF ME. THEY BROUGHT IT IN FOR ME TO SEE, AND IT WAS A GOOD BIG SEA SNAKE WHICH THEY HAD GOTTEN AT BARRA NAVARRO, A RESORT ON THE OCEAN. THEY WERE TAKING IT TO THE

La Cedar

Tecopatlan

Manantlan Ranch

Hab. Chacala

C. del Parale is to the  
west, northward

C. del Parale is west,  
right, all

TOOK NOTES ON IT AND  
MR. MAC GOT SOME COLORED  
PHOTOS THIS P.M.

CD.

Spent day grubbing thru bookstores. Found

one horrible old thing I bought for its short piece  
on the relations of man and snake

APRIL 18, 1949 - GUADALAJARA.

HELMUT AND I WENT OUT TO A BARRANCA WHICH IS COHERLY CALLED "BARRANCA IBARRA", WHICH IS THE SAME NAME AS BOILEY'S TYPE LOCALITY OF PREMONTA  
IBARRA, WHETHER IT'S THE SAME LOCALITY OR NOT. WEENDED UP ON TOP OF THE CANYON, HOWEVER, SO WE HAD TO WALK DOWN THE OLD POST ROAD TO AGUASCALIENTES. THE DISTANCE, HOWEVER, DEFEATED US, SO WE HAD TO TURN BACK. PEOPLE TOLD US THAT THERE ARE LARGE LIZARDS IN THE BOTTOM OF THE CANYON, AND WE PLAN TO DRIVE THERE NEXT TRIP IN. A ROAD RUNS TO THE POWERHOUSE ON THE DAM WHICH WE COULD SEE FAR BELOW, AND WE WILL COME BACK ON THAT.

I GOT A SMALL ANDOLIS ON THE TOP OF THE HILL. I ALSO SAW CROTALUS WHICH WOULD HAVE BEEN TOPOTYPES, BUT I DIDN'T GET ANY OF THEM.

APRIL 20, 1949 - GUADALAJARA AND AMECA.

drove to AMECA IN THE P.M., AFTER WAITING ALL DAY TO GET STARTED. THE HIGHWAY TO TEQUILA IS PAVED, AND WE FOLLOWED IT FOR ABOUT 20 MILES, TURNING OFF ON RD

APRIL 16, 1949 - SIERRA DE AUTLAN.

PACKED UP AND LEFT CAMP TODAY. THE MULE DRIVERS WERE SLOW GETTING UP THE MOUNTAIN AND SLOWED DOWN GETTING PACKED, SO WE FINALLY LEFT AT 12:30. I SHOT A SCEDIOPARUS ON THE WAY DOWN, AT ABOUT 7500 FT., AND ONE OF THE INDIAN MULEDRIVERS PICKED UP AN ANOLIS AT ABOUT 4600 FT.

TO GET TO OUR LOCALITY, ONE DOES FROM PIANTE THRU LA CEDRA AND TECOCOTLAN TO A GROUP OF RANCHES CALLED MANANTLAN. WE WERE IN THE MOUNTAINS TO THE EAST OF MANANTLAN. THERE ARE A NUMBER OF SPRINGS IN THE NW CORNER OF THE VALLEY IN WHICH MANANTLAN IS LOCATED, AND THE TRAIL UP THE MT. PASSES THRU THIS AREA. OUR CAMP, AT 7600 FT., WAS TO THE SOUTHEAST OF MANANTLAN.

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THE BOY IN THE HOTEL AT AUTLAN, THE SON OF THE OWNER, IS A BRIGHT LAD, AND WHEN HE SAW A SNAKE WHICH SOME PEOPLE HAD IN THE HOTEL, HE TOLD THEM OF ME. THEY BROUGHT IT IN FOR ME TO SEE, AND IT WAS A GOOD BIG SEA SNAKE WHICH THEY HAD GOTTEN AT ZARZA NAVARRO, A RESORT ON THE OCEAN. THEY WERE TAKING IT TO THE

APRIL 17, 1949, CONT.

MUSEUM AT GUADALAJARA. I TOOK NOTES ON IT AND PRESERVED IT PROPERLY FOR THEM. MAC GOT SOME COLORFUL PICTURES OF IT FOR ME.

WE DROVE TO GUADALAJARA THIS P.M.

APRIL 18, 1949 - GUADALAJARA.

SPENT DAY GRUBBING THRU BOOKSTORES. FOUND ONE HORRIBLE OLD THING I BOUGHT FOR ITS SHORT PIECE ON THE RELATIONS OF MAN AND INDIANS.

APRIL 19, 1949 - GUADALAJARA.

NECHUT AND I WENT OUT TO A BARRANCA WHICH IS LOCALLY CALLED "BARRANCA IBARRA", WHICH IS THE SAME NAME AS BOLCEY'S TYPE LOCALITY OF PREMONTRE PANICEN, WHETHER IT IS THE SAME LOCALITY OR NOT. WEENDED UP ON TOP OF THE CANYON, HOWEVER, SO WE HAD TO WALK DOWN THE OLD POST ROAD TO AGUASCALIENTES. THE DISTANCE, HOWEVER, DEFEATED US, SO WE HAD TO TURN BACK. PEOPLE TOLD US THAT THERE ARE LARGE LIZARDS IN THE BOTTOM OF THE CANYON, AND WE PLAN TO DRIVE THERE NEXT TRIP IN. A ROAD RUNS TO THE POWERHOUSE ON THE DAM WHICH WE COULD SEE FAR BELOW, AND WE WILL COME BACK ON THAT.

I GOT A SMALL IDOLIS ON THE TOP OF THE HILL. I ALSO SAW CEMIDOPHORUS WHITINGI WHICH HAVE BEEN TOPOTYPES, BUT I DIDN'T GET ANY OF THEM.

APRIL 20, 1949 - GUADALAJARA AND AMECA.

DOVE TO AMECA IN THE P.M. AFTER WAITING ALL DAY TO GET STARTED. THE HIGHWAY TO TEQUILA IS PAVED, AND WE FOLLOWED IT FOR ABOUT 20 MILES, TURNING OFF ON RD

Demuth - Second for the money

15 200 part

APRIL 20, 1949, cont.

IMPROVED ROAD TO AMECA. IT IS NOW IN THE PROCESS OF CONSTRUCTION, BUT IS A FAIRLY GOOD ROAD ALREADY. I SAW TRAILERS IN THE ROADSIDE PONDS AND CREEKS, BUT WE DIDN'T STOP. WE PUT UP IN THE HOTEL REGIS IN AMECA.

APRIL 21, 1949. - AMECA.

WENT OUT WITH THE MASTOS, AND HUNTED ALONG A SMALL CREEK WHILE THEY RAN THEIR TRAPS. IT WAS ABOUT 7 MI. W. OF AMECA, ON ONE OF THE DETAILS MADE FOR THE NEW ROAD, WHICH IS STILL IN THE PROCESS OF BUILDING HERE. THE ROAD FORDS A SMALL STREAM, AND I GOT OUT THERE. I TURNED ROCKS ALONG THE STREAM, BUT FOUND NOTHING FOR  $\frac{1}{4}$  OF AN HOUR. I THEN WALKED ALONG A HILLSIDE, AND FINALLY GOT A SNAKE (SP.?) UNDER A ROCK WHERE THE CREEK CUT OVER TO THE HILLSIDE. I LATER GOT A Sceloporus grammogaster NEAR THE CREEK. FROGL JUMPED INTO THE CREEK, I THINK THEY WERE PIPIENS.

AFTER BREAKFAST, I TOOK THE TRUCK AND DROVE AROUND TRYING TO FIND A PLACE TO COLLECT. I TRIED GOING NORTH, BUT THERE WERE NO GOOD ROADS. I FINALLY ENDED UP ON THE "CAMINO REAL", THE OLD SPANISH ROAD TO THE WEST. I FOLLOWED IT FOR 10 MILES, UNTIL IT FORDED THE RIO AMECA. I DIDN'T CHANCE THE RIVER. I SHOT SEVERAL CTENOSAURUS OFF STONE FENCES ALONG THE ROAD.

I PARKED ON THE WAY BACK AND WALKED TO THE RIVER. IT WAS CHOCKFUL OF TADPOLES. A SHORT WAY <sup>UPSTREAM</sup> FROM WHERE I PARKED (ABOUT 7 MI. W., THIS DOWN N. OF THE RIVER), I FOUND A SLOCHE, WHICH PRODUCED Bufo, Rana, Myers, AND Leptodactylus. I SAW SNAKE TRAILS AND SKINS, BUT

APRIL 21, 1949. - CONT.

NO SNAKES.

APRIL 22, 1949. - AMECA.

THE MASTOS WENT OUT LAST NIGHT AND TOOK THE TRUCK, STAYING THE FULL NIGHT, EXPECTING TO BE BACK FOR BREAKFAST. CAME BREAKFAST AND THEY DIDN'T SHOW, SO I WAITED. THEY FINALLY CAME IN AT NOON, AND I COULDN'T GO OUT AND ACHIEVE ANYTHING BEFORE TIME FOR DINNER. THAT TOOK TILL 5 O'CLOCK - BY THEN THE MASTOS WERE READY TO GO AGAIN. MY DAY WAS TOTALLY WASTED, ETC EXCEPT FOR SOME Lanat Bufo I GOT WHEN I WENT OUT WITH THE MASTOS.

APRIL 23, 1949. - AMECA

BILL AND I DROVE OUT OF THE CITY ON THE OLD CAMINO REAL TODAY. THE ROAD PARALLELS THE RAILROAD MOST OF THE WAY ACROSS THE VALLEY, APPARENTLY. THERE ARE MANY STONE FENCES AND CONSIDERABLE COVER ALONG THE ROAD, SO BILL RODE ON THE FENDER FOR SHOOTING. HE SHOT A SCELOPORUS AND A CHEMIDOPHORUS. ABOUT 5  $\frac{1}{2}$  - 6 MI. E. OF AMECA, THE ROAD FORKS AND ONE BRANCH GOES SOUTH ACROSS THE R.R. WE WENT THAT WAY, PICKING UP A YOUNG FERRET AS WE WENT. HE SPENT THE REST OF THE MORNING WITH US, CATCHING TURTLES, ETC. WE PASSED THRU A TOWN CALLED SAN ANTONIO, AND FORDED THE RIO AMECA ON ~~AT~~ THE RONCOS SOUTH EDGE. WE STOPPED THERE TO COLLECT. THE RIVER HAS FAIRLY HIGH, EROD AND SAND BANKS, AND RUNS FAIRLY DEEPLY, IN PLACES TURTLES WERE ABUNDANT AND I GOT A SERIES. I SAW SEVERAL SNAKES IN WATER HYACINTH BEDS, BUT GOT ONLY ONE. Rana Pipiens WAS VERY COMMON ALONG THE BANKS.

APRIL 24-AMECA.

AFTER THE MASTOS GOT BACK IN THE MORNING, I TOOK HEMLOT TO THE AIRPORT TO FIND OUT ABOUT RADS TO SON SEBASTIAN, THEN TOOK HIM BACK TO TOWN AND WENT OUT ALONE. I WENT S OF TOWN ALONG THE ROAD TO SON MARTIN HIDALGO AND AUTRON, STOPPING FIRST ABOUT A HALF MILE S OF THE AIRPORT. SAW 2 COUG'S DEER, AND SHOT AT THEM, BUT MISSED.

FROM THERE I DROVE ABOUT 2 MI FURTHER SOUTH AND STOPPED AT A BRIDGE WHICH HAD A SMALL POOL OF STAGNANT WATER, ALL THAT WAS LEFT OF A GOOD-SIZED CREEK. I FOLLOWED THE CREEK BED BUILT AWAY FROM THE ROAD, COLLECTING SCORPIONS & CRABIDOPS. WHEN I RETURNED TO THE SMALL POOL I SKOVED UP AND CAUGHT A 5 1/2 FOOT MASTIGOPHIS FLACCUS. R. PIENS WAS ALSO ABUNDANT AROUND THIS POOL. RETURNED TO TOWN, AS IT WAS TIME FOR THE MASTOS TO GO OUT AGAIN.

APRIL 25, 1949- AMECA-GUADALAJARA

WE LEFT AMECA AFTER THE MASTOS FINISHED SKINNING. WHILE I WAITED I DROVE WEST AGAIN ALONG THE CORDOBA ROAD AND SHOT 4 MORE CTENOSAURS. I KEPT ONE WHOLE SPECIMEN AND PRESERVED THE REST, AS SKULLS ONLY, TAKING DATA ON THEM FIRST. THEY WERE, AS USUAL, ON STONE FENCES ALONG THE ROAD.

THE VALLEY OF AMECA IS A VERY DIFFICULT ONE TO COLLECT IN, BECAUSE OF THE INTENSE CULTIVATION IT HAS UNDERGONE. THE RIVER IS USED IN ALL POINT OF THE VALLEY FOR IRRIGATION, AND THE WHOLE VALLEY IS COVERED WITH SUGAR CANE, CORN, AND WHEAT. ONE IS FORCED TO GO A LONG WAY TO FIND A PLACE WILD ENOUGH TO COLLECT.

APRIL 25, 1949, CONT.

IN THE WHOLE VALLEY IS WELL POPULATED, AND IT IS PRACTICALLY IMPOSSIBLE TO STOP AND COLLECT WITHOUT SPENDING A HALF HOUR EXPLAINING WHAT YOU ARE DOING TO SOMEONE.

ROVE SOUTH ON THE AMECA-AUTRON ROAD TILL WE PICKED UP THE AUTRON-GUADALAJARA HIGHWAY, THEN WENT TO GUADALAJARA. THIS IS MUCH THE BETTER ROAD, BUT THE OTHER WILL PERHAPS BE BETTER WHEN IT IS FINISHED. STAYED IN THE HOTEL MOLACES IN G.

APRIL 26, 1949- GUADALAJARA.

SPENT DAY HERE, WAITING FOR MAIL FOR HOOPER, ALTHO WE HAD ORIGINALLY PLANNED TO GO ON AT NOON TODAY.

APRIL 27, 1949- GUADALAJARA- TEPIC, MEX.

WE LEFT HERE EARLY THIS MORNING, ON THE GUAD-TEPIC HIGHWAY. WE CONTINUED ONWARD TO TEPIC, WHERE WE PICKED UP A ROAD TO THE SOUTH WHICH TOOK US, EVENTUALLY, TO A SMALL PLACE CALLED SON JOSE DEL CONDE.<sup>BY WAY OF COMPOSTELA</sup> THIS WAS AS CLOSE AS WE COULD GET TO THE SIGNAL SON SEBASTIAN BY TRUCK. WE CAMPED A SHORT WAY SOUTH OF TOWN AND WAITED TILL THE NEXT DAY TO TRY TO GET MULES.

WE FOUND A MASTIGOPHIS FLACCUS DOR JUST OUTSIDE OF TEPIC, MAYARIT. THE BURRARDS HAD EATEN HIM PRETTY BADLY, BUT I KEPT HIM ALL FOR CLOSER INSPECTION LATER. HOOPER SHOT A SCORPION FOR ME JUST OUTSIDE COMPOSTELA.

THE COUNTRY HERE IN MAYARIT IS ALMOST A STEADY PICTURE OF ISOLATED MOUNTAINS AND LARGE, FERTILE VALLEYS. THE MOUNTAINS LOOK TO BE QUITE DRY AND DRY FOR THE MOST PART, ALTHO SOME HAVE SCRUB OAK AND PINE

APRIL 27, 1949 - CONT.

ON THESE QUITE A FEW OF THE STREAMS WE CROSSED HAVE WATER IN THEM.

APRIL 28, 1949 - 1 MI. SW OF SAN JOSE DEL CONDE, 3000 FT.

MACINTOSH BROUGHT IN A PHYCODACTYLUS LANGEI WHICH HE HAD CAUGHT IN A MOUSE TRAP DURING THE NIGHT.

THIS IS A VERY DRY CAMP SITE, AMONGST MESQUITE AND ACACIA, WITH LITTLE GRASS COVER. THERE ARE DEEP VALLEYS ON EITHER SIDE OF THE RIDGE WHERE ONE AND THERE IS WATER IN THESE. I COLLECTED SMALL SERIES OF THE CROMIDOPS AND SCELIUS IN THE CANYON TO THE WEST OF THE CAMP, AS WELL AS AN ANOLIS AND SOME PIPENS.

WHEN I RETURNED TO CAMP, THE MASTOS THREW ME OUT A BARRANCE EAST OF THE CAMP, WITH MUCH WATCH, BANANA AND ELEPHANT EARS. I WENT OVER, AND FOUND A GREEN SPRING-FED VALLEY, WITH MUCH LIFE. I GOT AGAMYCNIS, NYC AND LEPTODEIRAS, IN THE BANANA BOLES AND ELEPHANT EARS.

WE DROVE BACK TO SAN JOSE DEL CONDE, AND TOOK A ROAD TO THE EAST, WHICH WENT DIRECTLY TO THE HIGHWAY BY WAY OF TERRAN, COMING OUT SE OF SANTA ISABEL. WE DROVE OUT THE HIGHWAY ABOUT 2 MILES N. OF SANTA ISABEL AND MADE CAMP.

APRIL 29, 1949 - 3 MI. N. OF SANTA ISABEL, 3800 FT.

OUR CAMP IS IN A CREEK BED JUST TO THE EAST OF THE ROAD, AND I FOLLOWED THIS CREEK DOWN TO A FALLS, WHICH I CIRCLED, COMING OUT IN A BANANA GROVE. I SHOT SMALL SERIES OF THE SCELIUS CROMIDOPS, AND ALSO PICKED

APRIL 29, 1949 - CONT.

UP AN ANOLIS & A CENOSAURA. THE LATTER WAS ON ROCKS NIGHT ON A BLUFF.

THERE IS CONSIDERABLE PERMANENT, FLOWING WATER AT THIS LOCALITY. IT FLOWS SO RAPIDLY AND DEEPLY, HOWEVER, THAT IT IS RATHER DISCOURAGING TO HERP LIFE. ALL ROCKS ARE BULIED IN SAND AND ARE UNTURNABLE. I GOT A LITTLE LEPTODEIRAS UNDER A ROCK IN THE AFTERNOON, ALONG THE RIVER, AND ALSO GOT ANOTHER AGAMYCNIS.

APRIL 30, 1949 - 3 MI. N. OF SANTA ISABEL.

SINCE I COLLECTED MOST OF THE COMMON STUFF HERE YESTERDAY, I HUNTED TODAY FOR THE REST OF THE HERP FAUNA. I GOT ONLY A SCELIUS FOR ITS SKULL BESIDES A SNAKE WHICH LOOKS LIKE HYPsiglena Reginis, DEAD IN A PATH, AND PRETTY BADLY CRUSHED. I'VE TWO OF THEM NOW, AND THEY HAD BEEN PREVIOUSLY REPORTED FROM ONLY TWO LOCALITIES IN MEXICO. IT WAS IN A PATH HIGH ON A HILL, COVERED WITH LONG GRASS. THAT WAS ALL I FOUND ALL DAY.

APRIL 30, 1949.

GOING TO SANTA ISABEL, AS THE MASTOS GOT BROKE POLICE WIRE. I WENT EAST OF THE HIGHWAY TO THE NIGHT ~~WALLS~~ <sup>HILLS</sup> THERE. I SAW CENOSAURUS ON THE ROCKS, BUT COULD GET NONE. I SHOT A SCELIUS ALSO. MOST OF THE AREA WAS SEVERELY BURNED OVER, AND THERE WERE NO LIZARDS IN THE BURNED AREAS.

SEVERAL OF THE STREAM CUT VALLEYS HAVE WATER FLOWING IN THEM, AND I FOLLOWED ONE OF. FOUND PIPENS

~~insects~~, as well as ammonian egg masses just in the process of hatching. They were clumped, with a single embryo, about  $\frac{1}{4}$  inch long, to each jelly ball.

MAY 3, 1949 - IXTLAN, MEXICO.

DROVE TO IXTLAN ABOUT NOON, AND PUT UP AT THE HOTEL MADRID, WHICH IS A GOOD PLACE NOT TO STAY. THE SANITARY FACILITIES ARE - TO SAY THE MOST - INADEQUATE.

RODE ALONG WITH THE HASTOS (M. G. TOWN), AND WENT DOWN ALONG THE RIVER. THE STREAM HERE IS QUITE SLOW AND SCOUR, WITH MANY ROCKS ON THE BANKS, AND STAGNANT POOLS ALONG THE SIDES. THIS COMBINATION PRODUCED *KINSEYERON*, *LEPTODEIRA*, *BUFO*, *HYLA*, AND *LEPTODACTYLUS* IN AN HOUR AND A HALF. MOST CAME FROM UNDER ROCKS ALONG THE STREAM, IN THE STAGNANT POOLS.

May 3, 1949 - IXTLAN.

I WAS INCAPACITATED MOST OF THE DAY, HAVING A NEEL PUT ON MY SHOE. I PREGESSED WHAT I HAD AND BROUGHT MY NOTES UP TO DATE.

WENT OUT TO THE SAME PLACE ON THE RIVER AND PICKED UP 2 MORE *LEPTODEIRA* AND 3 *LEPTODACTYLUS*. MACINTOSH GOT ANOTHER *BUFO* & 3 *LEPTODEIRAS*.

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ITINERARY

FEB. 15 - M. VERNON, ILLINOIS

" 16 - LITTLE ROCK, ARKANSAS

" 17 - JACKSVILLE, TEXAS

" 18 - LAREDO, TEXAS

" 19 - LINARES, NUEVO LEON

" 20 - TAMAULIPAS, SON LUIZ PORT

" 21-28 - MEXICO CITY, D.F.

MARCH 1 - PEGOCA, PUEBLA

" 2-4 - COAHUELA DE PEROTE, VERACRUZ

" 5 - LAS VEGAS, V.C.

" 6 - TACOMA, V.C.

" 7 - PECAN DEL RIO, V.C.

" 8 - COORDOBA, V.C.

" 9 - PARRASCO VIEJO, V.C.

" 10-13 - MEXICO CITY

" 14-15 - NEVADA DE TOLUCA, MEXICO

" 16 - CIUDAD HIDALGO, MICHOACAN

" 17-21 - CERRO SAN ANDRES, MICHOACAN.

" 22 - LAKE PATZCUARO, MICHOACAN.

" 23 - CIUDAD GUZMAN, JALISCO

" 24-28 - EL ISALTE, NEVADO DE COIMA, JALISCO.

" 29-30 - SAN GABRIEL, JALISCO.

" 31 - CIUDAD GUZMAN, JALISCO

APRIL 1 - NEVADO DE COIMA, JALISCO.

" 2 - 6 MI. W. OF CIUDAD GUZMAN, JALISCO.

" 3-4 - GUADALAJARA, JALISCO.

" 5 - AUTLAN, JALISCO.

" 6-7 2 MI. N. OF LA RESOLANA, JALISCO.

" 8-10 AUTLAN, JALISCO.

" 11-15 SIERRA DE AUTLAN, JALISCO.

" 16-AUTLAN, JAL.

" 17-19 GUADALAJARA, JAL.

" 20-22 AMECA, JALISCO.

" 25-27 GUADALAJARA, JAL.

" 28 1 MI. SE OF SAN JOSE DEL CONDE, NAYARIT.

" 29-MAY 1 3 MI. N OF SANTA ISABEL, NAYARIT.

MAY 2-3 IXTLAN, NAYARIT.

MAY 4 GUADALAJARA, JAL.

MAY 5 NEVADO DE COIMA, JAL.

MAY 6-7 CIUDAD GUZMAN, JAL.

MAY 8 NEVADO DE COIMA, JAL.

" 9-10 GUADALAJARA, JAL.

" 11 9 MI. W. OF ZAMORA, MICHOACAN.

" 12-14 4 MI. S. OF PATZCUARO, MICHOACAN.

## ITINERARY (cont.)

- MAY 15-17 MEXICO CITY, D.F.
- " 18 ZIMAPAN, HIDALGO.
- " 19-20 PANO AYUCTE, TAHUACIPAS
- " 21 ENROUTE
- " 22 M. VERNON, ILLINOIS
- " 23 ANN ARBOR, MICHIGAN

LOS PESCADOS      CAMP SITE 10,000  
LOS CONEJOS  
SIERRA DE AGUA  
PEROTE      CAMP DE PEROTE 14,000

↑ N

